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ABSTRACT

The document is the third of three volumes (see also EC 032 850 and EC 032 851) OF State Analysis Reports resulting from Phase III of the Study of the Need for Educational Manpower for Handicapped Children and Youth, which involved a validation study and state surveys related to the Manpower Requirements Projection Model (MRPM). Included in the volume are individual reports on special education information flow in states in alphabetical order from North Dakota through Wyoming. Recommendations made for each state provide guidance for developing an information flow that will enable that state to utilize the MRPM and improve the availability of information for other special education management functions. (See EC 032 847-EC 032 849 and EC 032 850-EC 032 851 for related information.) (KW)

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OPERATIONS RESEARCH, Inc.
SILVER SPRING, MARYLAND

STUDY OF THE NEED FOR EDUCATIONAL MANPOWER FOR HANDICAPPED CHILDREN AND YOUTH—PHASE III REPORT

PART D—STATE ANALYSIS REPORTS

1 May 1970

Prepared under Contract No. OEC 0-9-08928-0710
for the Bureau of Education for the Handicapped,
Office of Education, U.S. Department of Health, Education, and Welfare

PREFACE

The "Study of the Need for Educational Manpower for Handicapped Children and Youth—Phase III Report" has been organized so that appropriate parts of it may be conveniently distributed to those most immediately concerned with the content of each part. The general content of each part is as follows:

- Part A, Phase III Final Report, contains the overall report on the Manpower Requirements Projection Model (MRPM) validation efforts and the activities, findings, and conclusions of the state survey. Its appendices also contain implementation cost estimates and summaries of the enrollment and employment data collected during the state survey.
- Part B, Special Education Staff Users' Guide, contains both the general and the detailed guidance necessary for non-technical oriented personnel for understanding and implementation of the MRPM.
- Part C, Manpower Requirements Projection Model—Technical Documentation of the Computer Program, which is written for the technically oriented user of the MRPM, provides the technical details necessary for understanding the model formulations and computer programs.
- Part D, State Analysis Reports, includes individual reports on each state's special education information flow.

Parts B and C are bound together in one volume; Part D is divided into three volumes for ease in handling.

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NORTH DAKOTA STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and BEH and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of North Dakota and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

Within the North Dakota Department of Public Instruction, the Special Education Division is responsible for the state-level administration of special education programs in local public schools. This division currently receives reports from special education teachers and clinicians listing children enrolled in programs, by handicap type, by year of age. This data would satisfy some of the Manpower Requirements Projection Model input needs, but other data needed on handicap diagnosis, incidence, and attrition would have to be developed in the state. The Director of Special Education was extremely cooperative in providing information on program operations that would relate to the model, and expressed a willingness to develop as much of the needed data as possible, within the constraints of resources made available to do this.

In addition to public school special education programs, three state residential schools — blind, deaf, and mentally retarded — are operated by the State Board of Administration through its Department of Institutions. While little data needed for model usage is currently available at the state level, the Director of Institutions expressed a willingness to obtain from each of the schools the data needed by the Special Education Division for the model, and cooperate with the Division in any way possible.

No private school data is collected at the state level at this time, but the Director of Special Education stated that the informal working relationships that exist between the Special Education Division and these schools would enable the Division to obtain, on an individual request basis, most of the data needed for model application.

State government in North Dakota is served by a Central Data Processing facility, and the Department of Public Instruction, Special Education Division, can utilize this facility for data processing support required in model application. Extensive data processing support for enrollment data is not a firm requirement at this time, in that the amount of this data to be handled in the state is relatively small. However, Special Education has contemplated, in the past, the development of a central bank of data on diagnosis of handicapped children. If this concept could be developed, as part of the model implementation effort, then data processing support would be a definite requirement.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The responsibility for the education of handicapped children in North Dakota is illustrated in the informal organization chart shown in Figure 1. All

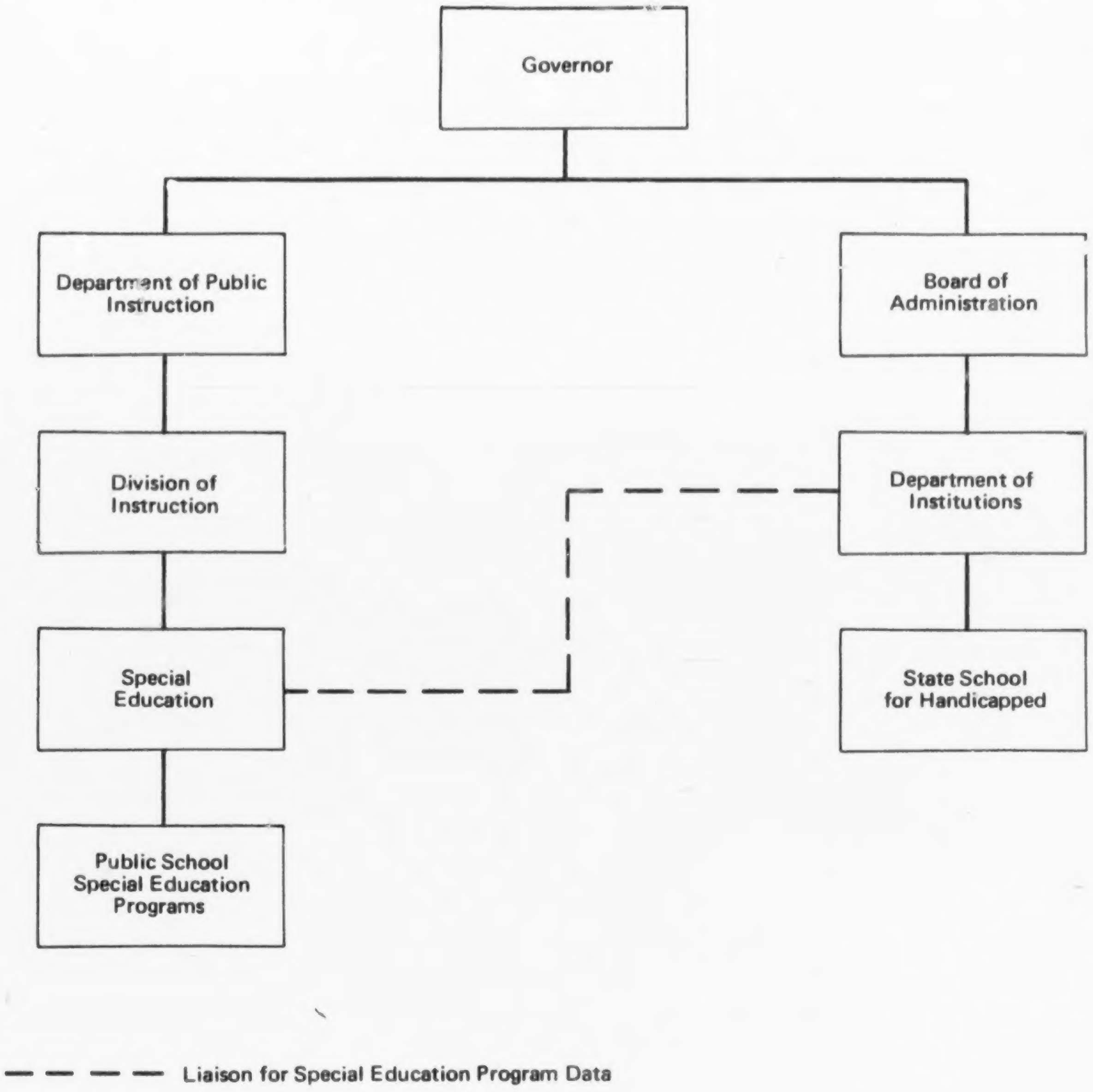
Governor
Department of Public Instruction
Board of Administration
Division of Instruction
Department of Institutions
Special Education
State School for Handicapped
Public School Special Education Programs
Liaison for Special Education Program Data

FIGURE 1. ORGANIZATION OF STATE AGENCIES PROVIDING SPECIAL EDUCATION IN NORTH DAKOTA

public school education in the state of North Dakota is under the auspices of the North Dakota Department of Public Instruction, headed by the Superintendent of Public Instruction, responsible to the Governor of the State. Within the Department of Public Instruction is the Division of Instruction, headed by the Assistant Superintendent for Instruction, and within this Division is Special Education, headed by the Director of Special Education. This Director is responsible at the state level for all special education programs conducted in local public schools in the state, exclusive of state residential schools and exclusive of private schools for handicapped children.

In addition to the Department of Public Instruction, the Board of Administration, through its Department of Institutions, operates three residential schools for handicapped children in the state: North Dakota School for the Blind, North Dakota School for the Deaf, and Grafton State School (for mentally retarded). The Board of Administration is also responsible to the Governor of the state.

Until recently, the Department of Public Instruction maintained a Data Processing facility within the Division of Administration. All data processing for state level agencies has now been consolidated, and a Central Data Processing facility has been established by the state. It is this facility that will be utilized in the future by the Special Education Division.

IV. DATA ELEMENT EVALUATION

Enrollment

For special education programs operating in local public schools, data on enrollments is currently available at the state level. Final reports are submitted to the Special Education Division each year by the local special education personnel. These reports are designated Form I, S. Ed., and there is a separate version of Form I for each individual public school handicap program (e.g., Form I-5, Report on Special Education Class for TMH Children; Form I-7, Report of Resource Teacher for Blind Children). The forms themselves indicate handicap area. Year of age follows the names of each child reported. The types of educational programs are linked to the handicap area (e.g., TMH children served in special classes; blind children served by resource teacher).

In addition, Form II-1, Application for Home Teaching, Form II-2, Application for Special Service, and Form II-4, Report on Homebound or Special Service, are received for each child who receives special education outside of the normal school setting. With the addition of handicapping condition to the information requested by Form II-4, all of these forms would contain year of age and handicap data for each child reported. Form II-4 would probably be the most appropriate of these forms to use in obtaining yearly counts of these homebound and special cases, in that it is used in the same manner as the other final report forms. (Copies of the forms described above appear in Section X, Current Report Formats, pages D34-17, 18, 19, 20, 21.)

The enrollment data that does exist at the state level is not now tabulated in the form needed for model usage. The tabulation could be done manually at this point in time, though data processing may be considered in the future. Data processing capability is now being developed within the Department of Public Instruction, but the Special Education Division has not yet determined how this capability will be used by them. If, for example, an individual pupil accounting system is developed and introduced in North Dakota (as further explained in the following section on Acceptance of Model Concept), this system will utilize ADP support. The enrollment data elements needed for model usage could easily be obtained through such a system, in that these elements are very basic.

Enrollment data for the three residential schools operated by the Department of Institutions does not now exist at the state level in the form needed. While the Director of Institutions does have total enrollment data for the schools it will be necessary to obtain enrollment by single year of age and by handicap from each of the individual schools. Each school superintendent can report this enrollment data, through the Director, to the Special Education Division.

Enrollment data for private schools for the handicapped is not now reported to the state level. However, there are 10 private schools that may be providing special education in the state, and because of the good working relationship that exists between the Special Education Division and the private schools, the needed enrollment data can probably be obtained from these schools on a request basis.

Unserved Handicapped Child Population

Data on children diagnosed as needing special education but not yet enrolled in a program is only partially available at the state level. The State Health Department, through five regional Mental Health Retardation Centers, sends copies of diagnostic records to the Special Education Division when children are diagnosed as handicapped and thought eligible for a public school program. The Public Welfare Board, through eight Social Service Centers, sends copies of diagnostic records in the same manner. There is, however, no formal channel established for the transmission of this diagnostic data, and so these records are received irregularly. In addition to this, the public school programs in the four largest cities in the state (which serve approximately one-fourth of the total school population) maintain their own diagnostic records, but these are not now forwarded to the state level. While the Special Education Division does have "access" to all of these diagnostic records, the diagnostic data that is available at the state level is not complete and reliable, and would not be adequate for model usage without further development.

One approach to obtaining this information would involve the development of a formal channel of communication between the Special Education Division and each of the agencies providing diagnostic services in the state (approximately 22 facilities are involved in diagnostic services). Through this channel, the Division would receive a copy of the record of each child diagnosed as handicapped and eligible for a public school program. If the district or county responsible for the child would be noted on the record, the Special Education Division could then compare the children diagnosed with the children actually enrolled to determine the number of children waiting to be enrolled in public school programs. This approach would require that the Department of Health, the Public Welfare Board, and other diagnostic facilities coordinate the handling of their diagnostic records with the Special Education Division. It would probably also require the application of data processing to both the pupil enrollment records and the diagnostic records by the Special Education Division, in order to match enrollments and diagnoses, and generate the list of those children not yet enrolled. It is possible that this matching could be done on a manual basis, but this would place a much heavier burden on the Division's clerical staff.

The Special Education Division has offered, in the past, to coordinate diagnostic data among the state agencies involved in special education diagnosis, and act as a central agency for diagnostic data. Problems such as confidentiality at the local level and lack of time and funds have interfered with past attempts to do this. The development of data such as that required for the model would require a heavy coordination effort at the state level by the Special Education Division.

An alternative approach to collecting this data on children waiting to be enrolled in a public school program would involve the modification and expansion of the final report forms (Form I and II-4, described above) to include a listing of the number of children not yet enrolled at the end of the year, by handicapping condition, and by single year of age. Children with speech defects who are on a waiting list at the end of the year are supposed to be reported currently as part of Form I-8 covering speech correction programs. This requirement could simply be added to each of the other report forms covering the other handicap areas. The success of this approach would depend, to a large extent, upon the special education staff member in the school being apprised of all children who have in fact been identified as handicapped. Where there are two or more special education staff members reporting from one school, they would have to coordinate the waiting lists they submitted, in order to guard against duplication. The four largest school districts have diagnostic specialists and maintain their own diagnostic files, and so no problem would be anticipated in obtaining this data from them.

For state residential schools serving handicapped, the number of children diagnosed but not yet enrolled can be obtained, on a request basis, from each of the three schools involved. This data can be forwarded, through the Director of Institutions, to the Special Education Division.

For private schools serving handicapped, this "waiting list" data can be requested, as needed, by the Division, along with the enrollment data from these schools.

No data on incidence of handicaps exists at the state level. Data needed to determine incidence rates is very similar in nature to the data on diagnosis of handicap, discussed in the above paragraphs. Required here would be a tabulation, by handicap type, by single year of age, of all children newly diagnosed as handicapped during the year. This data would be a natural "spin off" from the data needed on diagnosis, and would not be difficult to obtain if an information flow system, as described above, could be developed. If the Special Education Division received copies of diagnostic records as they were generated by the diagnostic centers in the field, a yearly count of handicapped children identified could easily be maintained. If the alternative of having individual schools report on children diagnosed and awaiting enrollment is considered, the collection of incidence data from each of the local schools providing special education should also be considered. The staff member reporting for each program could tally, or indicate on the enrollment or waiting lists, the number of children in that school, or referred to that school, who had been newly diagnosed that year as handicapped. This data could then be forwarded to the state level at the end of the year as part of the regular final reporting procedure now being used.

For state residential schools serving handicapped, the number of children newly diagnosed each year as handicapped may be obtained, on a request basis, from each of the three schools involved. This data may be forwarded through the Director of Institutions, to the Special Education Division.

For private schools serving handicapped, the number of children newly diagnosed each year as handicapped may be requested, as needed, by the Special Education Division.

The determination of the total number of handicapped children believed to exist in the state of North Dakota is based upon the published national prevalence statistics. The Special Education Division does, in fact, apply these statistics to school population data, and publishes the results each year. The Director feels that these national rates are reasonably accurate for North Dakota, and have been satisfactory for showing need for services, when applied to a large enough unit of school population, in this instance, at the county level. The Director stated that these national rates have, in fact, been verified for several program areas in the state. If data on incidence could be collected each year, as described above, this data could serve to further verify or modify the prevalence rates for the state.

In addition to children newly diagnosed as handicapped each year by diagnostic clinics or schools, it is possible that school programs will acquire children who have been diagnosed or identified as handicapped previously in other school districts or other parts of the state. Rather than reporting these children again as newly diagnosed (which could distort the incidence picture in the state), these intra-state transfers should be reported separately. Because no mechanism exists to monitor these transfers into special education program, this would have to be developed by the Special Education Division. This could be accomplished by modifying Forms I and II-4 to enable respondents to indicate which children reported that year had transferred into their program from another special education program in the state. These intra-state transfers could then be tabulated fairly simply from these enrollment forms when received.

State residential schools and private schools could also be asked to indicate intra-state transfers into their programs, as part of the enrollment data that the Special Education Division would be requesting each year for inclusion in the model.

Attrition

Except for the area of speech correction, no attrition data on public school programs exists at the state level. In order to obtain this data for model usage, the Special Education Division will have to develop the mechanism to monitor attrition. One approach to this would involve the modification and expansion of the final report forms (Forms I and II, S. Ed.) for each handicap area. An additional column could be added to each Form I. This attrition column could be subdivided into three sub-columns for the three reasons for attrition—returning to regular education, mortality, or other reasons. Each teacher could then check the appropriate attrition reason on the line for each child who leaves the program during the year.

For the speech correction report forms, the "left school" column which already appears on the form could be expanded to include the three reasons for attrition. The "corrected" column on this report could also be used to verify children returning to regular education.

Another approach to form modification for all handicap areas would involve a single additional column to record attrition, with the use of a code letter or number in that column on the line for each child who leaves (R-return to regular education; M-mortality; O-other reasons). For Form II-4, covering homebound and special cases, the reason for attrition could be added as a separate question on the form.

If waiting lists are maintained by special education personnel, attrition from these lists could be indicated in the same manner as attrition from enrollment lists.

For state residential schools involved in special education, attrition data is maintained by each of the three schools, and this data could be supplied as needed, through the Director of Institutions, to the Special Education Division.

For private schools serving handicapped, this attrition data may be requested from each school, as needed, by the Special Education Division (along with the other data elements that would be requested).

General Population Projections

Projections of the general child population in the state are currently being made bi-annually for children in age ranges 1-5 years, and 6-20 years. Based upon these projections, some local school districts are making projections by single year of age. In addition, the state does have the general school population by grade level. Projections of the child population, by single year of age, would have to be developed by the Special Education Division, based upon the available data described above. It is felt that this data, properly combined, could provide the basis for reasonable general child population projections.

Trends in Enrollments

Data to plot enrollment trends in public school programs currently exists at the state level, being contained on report forms for enrollment, described earlier in this section. Enrollment trends for state residential and private schools could be requested from each of the individual schools, or could be plotted by the Special Education Division for these schools, based upon the enrollment data that could be obtained from the schools each year.

Personnel/Pupil Contact Ratios

Personnel/pupil contact ratios for public school special education programs have been established by the Special Education Division and are contained in "Guides to Special Education in North Dakota, Review of Special Education Programs" published by the Department of Public Instruction. These ratios are not law or policy, rather, they are considered practical, recommended ratios to be used at the local level.

For state residential schools, personnel/pupil contact ratios are determined by the Superintendents of the individual institutions. In most instances, the curriculum is determined, teachers are hired, and the number of children in each class is determined on an individual basis for each teacher. The ratios used, therefore, will be extremely flexible within each school. This is also the case in each of the private schools serving handicapped in the state.

For state residential schools, the ratios established by individual school Superintendents will have to be obtained from each of these schools through the Director of Institutions. Likewise, ratios used in private schools, which are not now known at the state level, will have to be requested from each of these schools. No difficulty is anticipated in determining the ratios used in any of these schools.

Personnel

Numbers and types of special education personnel employed in public, state, and private schools are reported each year in the Special Education Directory, published by the Department of Public Instruction. In addition, the Department is introducing a new Personnel Record form during the 1969-70 school year. This form will be handled by data processing, and so printouts of public school teachers by position, degree level, certification, etc., will be available to the Special Education Division (see Section X, pp. D34-22, 23 for rough draft of this form).

V. PROCESSING POTENTIAL

Hardware

The State of North Dakota operates a Central Data Processing facility which provides data processing services to all state agencies. This facility will house an RCA Spectra 45 (scheduled for installation 8/15/69), with 8 tape drives, 2 disc packs. This machine will have a FORTRAN compiler, and will be adequate for model requirements.

The Department of Public Instruction operated its own IBM 360-20 at one time, and with the establishment of Central Data Processing within the state, this machine was taken from the Department for use by CDP. In return for this, the Department of Public Instruction was granted $100,000 credit against computer time and data processing services. No problem, therefore, would be anticipated in obtaining the supportive services needed for model application.

Personnel

The Central Data Processing facility employs programmers and key punch personnel who would be available to serve the Special Education Division. In addition, a Systems Analyst will be assigned to the Department of Public Instruction, and this person will act as a liaison between CDP and the Department for all systems and data processing services. This Analyst would relate to the Special Education Division for purposes of model implementation, for both setting up the model and analysis and interpretation of the data.

Acceptance of Model Concept

The general attitude toward the application of systems and data processing techniques to the handling of educational data is apparently very positive. The Special Education Division is currently preparing to examine the ways in which data processing may be applied to the operation of the Division. A new personnel record has been developed for use by the Department of Public Instruction and will be introduced during the 1969-70 school year. This record will provide the Division with detailed data on special education personnel. In addition, North Dakota has been involved in the Midwestern States Educational Information Project (MSEIP), an attempt to develop and improve school information for thirteen midwestern states. As one phase of their involvement, the state has developed a Pupil Accounting Manual which outlines, in great detail, the elements of data which should be collected and maintained by either the local school or the Department of Public Instruction. Included is much detailed data on special education children. This data, if it were to be developed as described in the manual, would satisfy most of the data needed for the Manpower Requirements Projection Model in North Dakota (or in any of the other states involved in the project). This MSEIP is not at the implementation stage in any of the states, however, and so cannot be relied upon, at this point in time, to provide the data needed for model usage.

The Manpower Requirements Projection Model, when ready for implementation in North Dakota, would be integrated with any other information systems development of this nature that is underway in the state.

The Director of Special Education is interested in the model, and stated that she would be willing to develop as much of the needed data as is practical in order to utilize the model, in cooperation with the objectives of BEH. The most difficult aspect of model utilization in the state is not the lack of willingness to use the model or acceptance of the model, but rather the degree of difficulty that may be realized in the development of the input data for the model.

VI. ADDITIONAL FACTORS

The major concern within the Special Education Division appears to be the availability of funds for the operation of special education programs needed in the state. The Director of Special Education estimates that one-fourth of the children needing special education are enrolled in programs. There are no funds available for more programs to serve those children. Whenever a new class is opened in a school, it fills immediately with handicapped children. Funds have not been applied in the state to study or document the need for special education. Funds are used instead to open new classes for handicapped.

The need for special education is also reflected in the pattern of diagnosis in the state. Where special education programs are operating in an area, the number of children diagnosed as handicapped is relatively high, compared to areas where no program is operating. Where no program is available, parents are not as likely to take children to a diagnostic center for testing, knowing there is little likelihood of the child's being enrolled in a program as a result. This problem is due, in large part, to the spread of population over large rural areas in the state.

Because the focus of special education in the state is necessarily on service, the data development associated with model implementation (as described in earlier sections) will be closely examined by the Special Education Division in terms of the costs that might be incurred. The Special Education Division is justifiably reluctant to incur costs not associated with direct service to handicapped children in the field.

Both the Special Education Division and the Department of Institutions have stated a need for a central bank or system of information on diagnosis of handicapped. The Special Education Division has offered, in the past, to act as a central agency for data on diagnosis in the state. To date, no progress has been made in establishing such a system. The problems encountered have included questions of confidentiality of names entered into a data bank (current laws are unclear on this), lack of funds available to apply to development of a system, and also, lack of coordination among the state level agencies that would have to be involved in this effort. It is anticipated that where data needed for model usage must be developed from among state level agencies (as in the case of diagnostic data), a heavy coordination effort would be required on the part of the Special Education Division. At this point in time, the resources that would be required for such an effort do not appear to be available within the state.

VII. RECOMMENDATIONS

For the collection of data on public school enrollments in special education, the final report forms currently submitted by teachers and clinicians will satisfy the model requirement. The report form covering homebound and special services could be modified to include the handicapping condition of the child reported. These forms may be tabulated manually, and if this is done, additional clerical personnel (or time) will probably be required by the Special Education Division. Because data processing capability is available to the Division, the application of data processing to these enrollment records should be examined by the Division. However, because of the relatively small number of forms and children involved here, data processing would not appear to be a firm requirement at this time.

For the collection of data on children diagnosed but not yet enrolled in public school special education programs, the two approaches to this requirement, previously described in the Data Element Evaluation section, may be examined by the Special Education Division in light of the availability of resources and, perhaps, likelihood of accomplishment. The establishment of the Division as a central agency for data on diagnosis should be examined first, in that the need for such a central agency has already been recognized in the state (and the fact that the manpower projection model would also need such data may lend impetus to its development). In the absence of the development of this data flow to the Division, the alternative approach of requesting "waiting list" data from each of the schools should be considered. This would involve the modification of final report formats to include lists of children waiting by handicap, and by year of age. While this alternative would be somewhat easier to implement, the amount of data received on children waiting would probably be less, in that only those schools which have special education programs would be reporting, and children not known to these schools would not be reported. A reasonable indication of children not yet served could still be obtained, however, in that special education programs are concentrated in the more populous areas in the state.

Because the Special Education Division has used national prevalence rates, verified in several program areas, for showing need for services in the state, this waiting list data collected from programs could be used to further verify or modify these rates for each county.

For the collection of incidence data on public school special education programs, the two alternative plans previously described in the Data Element Evaluation section should be examined by the Special Education Division. The collection of this data is closely linked to the collection of the data on children diagnosed but not yet enrolled, that is, the same basic system would satisfy the data needs of both areas. If a central bank of diagnostic data could be established at the state level, counts of children newly diagnosed each year would be relatively easy to extract. If a central agency could not be established, the alternative of requesting counts of children, newly diagnosed each year, from each school offering special education should be examined. This would involve the modification of the final report forms described above, to include space to indicate which children, reported on the enrollment lists or on the waiting lists, were newly diagnosed that year.

These same forms could be further modified to include space to indicate which children, reported on the enrollment lists or on the waiting lists, had transferred into that program area from another special education program in the state.

Attrition data on public school special education programs may also be collected through the modified final report forms. These forms could be expanded to include a column to record the reason for a child's attrition, when it does occur. Reason for attrition could be indicated on both lists of enrollments and lists of children waiting for enrollment.

The final report forms are normally submitted to the state level at the end of each year, and this data on attrition could be tabulated along with the other data recorded on the form.

Projections of the general child population, by single year of age, could be developed by the Special Education Division, in that the basic data for making these projections is available at the state level, and can be pulled together by the Division.

Data needed to plot enrollment trends in public school programs is also available at the state level, based upon enrollment data collected on final report forms.

Data on personnel-pupil contact ratios already exists within the Division, and no further development would be required. Likewise, the numbers and types of special education personnel are reported to the Division for public, state, and private schools. Additional detailed data on public school personnel will soon be available to the Division, pending introduction of a new ADP-based Personnel Record System within the Department of Public Instruction.

All data on state residential school programs may be requested from these schools through the State Director of Institutions. The Director will coordinate the information requests and act as the liaison between the Special Education Division and each of the schools. Data requested from each school will include a count of children enrolled, children diagnosed and waiting for enrollment, children newly diagnosed as handicapped that year, intra-state transfers, and children leaving the program that year (by reason for attrition). Because the program type and handicap type will be known for each school, this data would be needed by single year of age only.

Enrollment trends for state residential schools may be requested from each of the schools, or may be plotted by the Special Education Division, when enrollment data from the schools is forwarded to the Division.

Personnel-pupil contact ratios are set by the individual Superintendents of each of the three schools. These ratios would be available, upon request, along with the data on children as described above.

All data on private schools offering special education programs may be obtained on a direct request basis, from each of these schools. Because of the small number of private schools involved (10 total), all of which have small enrollments, the Special Education Division can request the needed information from each school in the same manner that the data will be requested from the state residential schools. The Division should probably provide each school with a simple format and instructions for supplying the data. For private schools, also, the program types and handicap types are known, and so only the single year of age counts will be needed on handicapped children in each of the categories (enrollment, attrition, etc.).

Enrollment trends for private schools may be requested from each of the schools, or may be plotted by the Special Education Division, when enrollment data from the schools is forwarded to the Division.

Personnel-pupil contact ratios are determined by each school on an individual basis, and would be available, upon request, from each of the private schools, along with the data on children as described above.

For all information requested from both state residential and private schools, the Special Education Division could provide reporting formats and procedures to the schools, in order to clarify data elements needed, and facilitate their response to the request.

The application of data processing to pupil record-keeping should be considered by the Special Education Division, especially in light of the requirements for tabulation and manipulation of all data elements that would be required by the Manpower Requirements Projection Model. As mentioned earlier in this report, data processing capability is being developed and should be available to the Division. While tabulation of some data could be done manually, the level of clerical effort involved in tabulation of all data would probably increase to a point where automatic data processing would be much more efficient and economical.

The progress and status of the Midwestern States Educational Information Project should be examined by the Special Education Division in conjunction with the development of data for the Manpower Requirements Projection Model. If, in fact, the MSEIP were to be implemented in North Dakota, the data to be collected through this system should be closely examined in light of the data needs of the projection model.

VIII. RESOURCE REQUIREMENTS—MANPOWER

The resources required for the development of the data elements needed for the Manpower Requirements Projection Model would depend upon the approach taken by the Special Education Division in that development effort.

If, as part of overall model implementation, a central bank of diagnostic data were to be developed (contingent upon willingness of other state agencies to cooperate in developing, and contributing to, the central bank), the requirement for coordination of other diagnostic agencies by the Division would be a heavy one. The administrative planning and coordination at the beginning of the effort would require a minimum 2 man-months of administrative time (Director or Assistant Director level), coupled with basic systems analysis and design work (data bank specification, forms design, procedure and instruction writing, etc.) requiring a minimum of 3 man-months of time on the part of a qualified systems analyst plus the services of a programmer for 1 man-month. This total effort would probably be spread over a 3 to 4 year period.

If a central bank of diagnostic information were not attempted, the expansion and modification of the existing reporting system, as previous described in this report, would require a minimum of 1 man-month of administrative time, coupled with a minimum of $\frac{1}{4}$ man-year of time on the part of a qualified systems analyst and 2 man-weeks of clerical time. If pupil record-keeping were to be handled by data processing, an additional man-month of programming would be required in the conversion of the current manual reporting system.

On-going maintenance of the model and related information flow would require approximately $\frac{1}{2}$ man-month of cumulative effort per year. The amount of clerical time required for maintenance would be approximately $1\frac{1}{2}$ man-months for the manual system and be negligible for an automated record keeping process. If tabulation of all data elements were to be done manually, approximately $1\frac{1}{2}$ man-months per year of clerical time would be needed.

IX. PERSONS INTERVIEWED

The persons interviewed by the ORI (Leasco) representative, Mr. Michael W. Brown, during the week of 11 August 1969 were:

Miss Janet M. Smaltz	Director of Special Education, Department of Public Instruction
Mr. Leslie Engstrom	Data Processing Liaison, Department of Public Instruction
Mr. Walter Fiedler	Director of Institutions, Board of Administration
Mr. Cliff Bender	Auditor, Department of Institutions, Board of Administration
Mr. Erwin Bitz	Assistant Director of Special Education, Department of Public Instruction
Miss Ida Schmitt	Assistant Director of Special Education, Department of Public Instruction

X. CURRENT REPORT FORMATS

Following in this section are representative examples of the final report formats now used by the Special Education Division.

Form I-5, Special Education, Report on Special Education Class for Trainable Mentally Handicapped Children

Form I-8, Special Education, Report on Speech Correction Programs in Public Schools

Form II-4, Special Education, Report on Homebound or Special Service

Also included is a copy of the rough draft of the new Personnel Record to be introduced by the Department of Public Instruction.

Form I - 5
S. Ed.

DEPARTMENT OF PUBLIC INSTRUCTION
M. F. Peterson, Superintendent
Bismarck, North Dakota

REPORT ON SPECIAL EDUCATION CLASS FOR TRAINABLE MENTALLY HANDICAPPED CHILDREN

Date____________________ County____________________

I. COUNTY OR SCHOOL SYSTEM____________________

II. SCHOOL ADMINISTRATOR____________________

III. ADDRESS OF SCHOOL____________________

IV. REPORTING TEACHER____________________

V. CLASS ENROLLMENT (NUMBER)__________

CHILD'S NAME	AGE	PARENT	HOME ADDRESS
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

(REPRODUCED FROM STATE FORM)

VI. Schedule (Daily schedule in blocks of time)

Page 1 of 3 pages, Form I-5

Page 3 of Report on Speech Correction Programs
in Public Schools

Form I - 8
S. Ed.

REPORT ON INDIVIDUALS SERVED

1. Child's Name	School	2. Age	3. Gr	4. Speech Defect Artic	H L	Cl P	V	Stut	CP	5. More	6. Corrected	7. Left School
1.												
2.												
3.												
4.												
5.												
6.												
7.												
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												
17												
18.												
19.												
20.												
21.												
22.												
23.												
24.												
25.												

VI. REPORT ON INDIVIDUALS SERVED:

On attached sheets report children who were enrolled in the speech correction program. When you have completed that list, report all children with speech defects who are on a waiting list at the end of the year. Identify the group on a waiting list by starting a new sheet and so designating.

EXCERPT FROM PAGE 2

(REPRODUCED FROM STATE FORM)

"Buy North Dakota Products" D34-18

Form II - 4
S. Ed.

DEPARTMENT OF PUBLIC INSTRUCTION
M. F. Peterson, Superintendent
Bismarck, North Dakota

- REPORT ON HOMEBOUND OR SPECIAL SERVICE

Date______________________________ County____________________________________

(Prepare one report for each child.)

I. COUNTY OR SCHOOL SYSTEM____

II. SCHOOL ADMINISTRATOR____

III. REPORTING TEACHER____

IV. Name of Child Age Parent's Name Grade Level

____

V. How many hours of instruction per week were given?__________________

VI. How many weeks did instruction continue during the school year?_______

VII. What subjects were scheduled?

(REPRODUCED FROM STATE FORM)

VIII. Comments:____

Signed______________________________
Reporting Teacher

(Teacher will complete four copies of this report and file two with the sponsoring superintendent and one with the Director of Special Education, Department of Public Instruction, Bismarck, and retain one copy for special education files.)

"Buy North Dakota Products"

D34-19

[redacted] C-?-S

(Note in folder) → ARE "A"

NORTH DAKOTA
DEPT. OF PUBLIC INSTRUCTION
BISMARCK, NORTH DAKOTA
58501

PERSONNEL RECORD

~~COPY 1 SECONDARY DIVISION~~
~~COPY 2 TEACHERS INS. & RET. FUND~~
~~COPY 3 SCHOOL COPY~~
~~COPY 4 ELEMENTARY DIVISION~~
☐ ~~CHECK IF NO LONGER~~ EMPLOYED AND RETURN FORM

1.

CO. NO.	DIST. NO.	SCHOOL NO.	TYPE

2.

SCHOOL NAME

3.

P.O. ADDRESS

4.

ZIP CODE

5.

SOCIAL SECURITY NUMBER		

6.

NAME			
LAST	FIRST	I	MAIDEN

7.

DATE OF BIRTH		
MO.	DAY	YR.

8.

SEX

nal
igne

9.

	PERMANENT HOME ADDRESS		
P.O. ADDRESS	STREET, BOX R. RTE.	STATE	ZIP CODE
Area 1 ⟷	Area 2.		

10.

NUMBER OF YEARS EMPLOYED			
LOCAL	IN STATE	OUT OF STATE	MILITARY

11.

ENTER THE COUNTY, SCHOOL DISTRICT AND THE DATE YOU FIRST TAUGHT IN N. DAK.					
COUNTY NAME	SCHOOL DISTRICT NAME AND NO.	P.O. ADDRESS	MO.	DAY	YR.

12.

TOTAL SALARY

13.

MARITAL STATUS

(REPRODUCED FROM STATE FORM)

14.

ENTER THE COUNTY, DISTRICT AND THE SCHOOL YEAR YOU LAS… IN N. DAK.			
COUNTY NAME	SCHOOL DISTRICT NAME AND NO.	…DRESS	SCHOOL YEAR

15.

FULL TIME EQUIV.
%

16.

CONTRACT PERIOD

17. ARE YOU A MEMBER OF THE TEACHERS' INSURANCE AND RETIREMENT FUND? YES___ NO___
18. DO YOU WANT CREDIT FOR OUT OF STATE EDUCATIONAL EXPERIENCE? YES___ NO___
19. DO YOU WANT CREDIT FOR MILITARY SERVICE EXPERIENCE? YES___ NO___
20. HAVE YOU WITHDRAWN FROM TEACHERS' INS. & RETIREMENT FUND? YES___ NO___
21. DO YOU WANT CREDIT FOR THE NUMBER OF YEARS WITHDRAWN? YES___ NO___

22.

HIGHEST EDUCATIONAL TRAINING					
LEVEL	INSTITUTION	YR. REC'D.	SEM. HRS.	OR	QTR. HRS.

23.

TIME DEVOTED TO	
ELEM.	SEC.
%	%

24.

EMPLOYMENT PREVIOUS YEAR

25.

EMPLOYMENT STATUS

Change to read ED. EMPL STATI

26.

DATE OF MEDICAL EXAM.		
MO.	~~DAY~~	YR.

Eliminate word: DAY + 2 rules
Add Vert. rule

27.

DATE OF MOST RECENT ACCIDENT		
MO.	DAY	YR.

28.

MAJOR ASSIGNMENT			
POSITION TITLE	AREA OF RESPONSIBILITY	TIME	SCOPE
		%	

29.

OTHER ASSIGNMENT			
POSITION TITLE	AREA OF RESPONSIBILITY	TIME	SCOPE
		%	

30.

OTHER ASSIGNMENT			
POSITION TITLE	AREA OF RESPONSIBILITY	TIME	SCOPE
		%	

31.

CURRENT N. DAK. CERTIFICATE					
CERT. NO.	TYPE	EXPIRATION DATE			LIFE (✓)
		MO	DAY	YR.	

D34-20

32. / /

33.

34. SPECIAL N. DAK. CREDENTIAL

CRED. NO.	TYPE	EXPIRATION DATE		
		MO.	DAY	YR.

35. SPECIAL N. DAK. CREDENTIAL

CRED. NO.	TYPE	EXPIRATION DATE		
		MO.	DAY	YR.

36. SPECIAL N. DAK. CREDENTIAL

CRED. NO.	TYPE	EXPIRATION DATE		
		MO.	DAY	YR.

37. SPECIAL N. DAK. CREDENTIAL

CRED. NO.	TYPE	EXPIRATION DATE		
		MO.	DAY	YR.

38. ELEMENTARY GRADES TAUGHT (K-8)

GRADE LEVEL		NUMBER OF PUPILS	INSTRUCTIONAL AREA			
LOWEST	HIGHEST		AREA	AREA	AREA	AREA

39. ENTER THE NUMBER OF HOURS OF CREDIT AND IN-SERVICE TRAINING COMPLETED IN THE LAST FIVE YEARS SINCE RECEIVING HIGHEST LEVEL OF EDUCATION

INSTRUCTIONAL AREA	SEM. HRS.	QTR. HRS.	IN-SERVICE	INSTRUCTIONAL AREA	SEM. HRS.	QTR. HRS.	IN-SERVICE

40. ENTER THE DATE OF THE MOST RECENT COLLEGE ATTENDED

MO.	YR.

INSTRUCTIONAL PROGRAM (K-12)

41.

~~DAYS PER WEEK~~ (✓)					TERM	COURSE NAME	SEQ. YR.	COURSE CODE	TIME OF DAILY CLASS	NO. OF MINUTES	NO. OF WEEKS PER YEAR	AMOUNT OF CREDIT	NUMBER OF PUPILS				
M	T	W	TH	F									K-8	9TH	10TH	11TH	12TH

NOON

~~DAYS PER WEEK~~ (✓)					TERM	COURSE NAME	SEQ. YR.	COURSE CODE	TIME OF DAILY CLASS	NO. OF MINUTES	NO. OF WEEKS PER YEAR	AMOUNT OF CREDIT	NUMBER OF PUPILS				
M	T	W	TH	F									K-8	9TH	10TH	11TH	12TH

(REPRODUCED FROM STATE FORM)

HIGH SCHOOL AREAS AND COURSES AUTHORIZED TO TEACH (9-12)

42. DO NOT WRITE IN THE BLOCKS BELOW

COURSE/AREA -								
COURSE/AREA -								
COURSE/AREA -								
SEM. HOURS IN COURSE/AREA -								

— Changes to [illegible]: FORM FEB 2

"BUY NORTH DAKOTA PRODUCTS"

RETAIN SCHOOL COPY

D34-21

RETURN ALL OTHERS TO COUNTY SUPT. OF SCHOOLS ON [illegible]

TABLE 1

SUMMARY OF DATA DEVELOPMENT STATUS

North Dakota

DATA ELEMENTS			PUBLIC SCHOOLS			STATE RESIDENTIAL SCHOOLS			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Contained on most final report forms	Addition of handicap type	Final Report Forms (Form I, S.Ed., Form II-4, S.Ed.)	Not	Needed data	Individual	Not now
		HANDICAPPING CONDITION	Can be	to form for homebound and	submitted by				
		EDUCATION PROGRAM	added to others	special services.	local school personnel	now	may be	schools	available
	ON WAITING LIST	AGE	Not now available, except for speech handicaps	Establishment of data bank for	Currently exists on Form I for speech correction only. Depending on approach taken could be submitted by diagnostic facilities or by local school personnel				
		HANDICAPPING CONDITION		all diagnosis,		available			at
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE		or modification			requested		
		HANDICAPPING CONDITION		of current forms					state level
	INTRA-STATE TRANSFERS	AGE		Addition of	Modified final report forms	at	from		needed data
		HANDICAPPING CONDITION	Not now available	question on transfers to final report form	submitted by		each		may
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	in form	Addition of question on	local school	state	school		be
		HANDICAPPING CONDITION	needed.	attrition to	personnel				
		REASON	Could be	final report form		level	through		requested
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			developed	Data assembled by Special Education Division	Various studies now conducted				
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Could be done using correct data		Final report forms	Could	Director		from each
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Currently available within		Special Education Directory	be	of		school
		EDUCATION PROGRAM	Special		and Guides to Special Education	obtained	Institutions		directly
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Education Division		in North Dakota	Already known by Special Education Division		Special Education Directory	Already known by Special Education Div.

OHIO STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

OHIO STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Ohio, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

The Division of Special Education in Ohio has developed a sophisticated set of reports and procedures to meet its information needs. This is particularly true of the enrollment reporting in the unit approval system, which covers a very large number of handicapped children and school districts. The majority of this data reporting and tabulating has been done by manual techniques.

Several of the types of data elements required by the model have not heretofore been collected at the state level. The development of accurate and comprehensive data in these new areas comparable to the level of achievement made in the enrollment reporting will require considerable effort.

Increases in the scope of reporting, such as those additions required for model implementation, could only be handled by means of automated techniques and the addition of resources including systems analysis capability and funds.

While a complex array of programs is administered in Ohio over many school districts for a large number of children, the responsibility and authority appears to be focused and centralized in the Division of Special Education so that implementation of the model will require the coordination of a minimal number of groups.

The attitude of the director and staff of the Division of Special Education toward the implementation of the model was favorable, and in all cases the cooperation received was excellent.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The primary policy-making body for public education in Ohio is the State Board of Education, whose responsibilities include:

- Formulating and administering educational policies relating to instruction, teaching materials, buildings and equipment, transportation of pupils, finance, and school district organization
- Apportioning state and Federal funds to elementary and secondary schools
- Prescribing minimum school standards
- Determining who should teach and how they should be prepared

- Operating the State Schools for the Blind and Deaf
- Serving as the State Board of Vocational Education and State Board of Vocational Rehabilitation
- Hearing important issues as a board of review
- Cooperating with other state and Federal agencies concerning the health and welfare of youth.

Under the direction of the State Board of Education, the State Department of Education (see Figure 1) is organized to provide leadership, research, and service to Ohio schools. The divisions and major functions of the Department pertinent to the Manpower Requirements Projection Model are the Division of Special Education, which would be the focal organization for implementation and use of the model; the Division of School Finance, which collects enrollment data in the process of distributing foundation program funds; the Division of Computer Services and Statistical Reports, which collects some data from the local districts; and the State Schools for the Blind and Deaf.

The primary objective of the Division of Special Education (see Figure 2) is to aid the public schools of Ohio in providing adequate educational opportunities and services for handicapped children. This objective is accomplished through financial aid, leadership in program development, pre-service and in-service training of teachers, research and demonstration, field service and supervision, and direct services to children and parents. These services are provided in the following type of programs.

- Auditory Handicap
    - Deaf
    - Hard of Hearing
- Orthopedic Handicap
    - Crippled
    - Physical Therapy
    - Occupational Therapy
- Visual Handicap
    - Blind
    - Partially Seeing
- Mental Handicap
    - Educable Mentally Retarded
- Speech and Hearing
    - Therapists

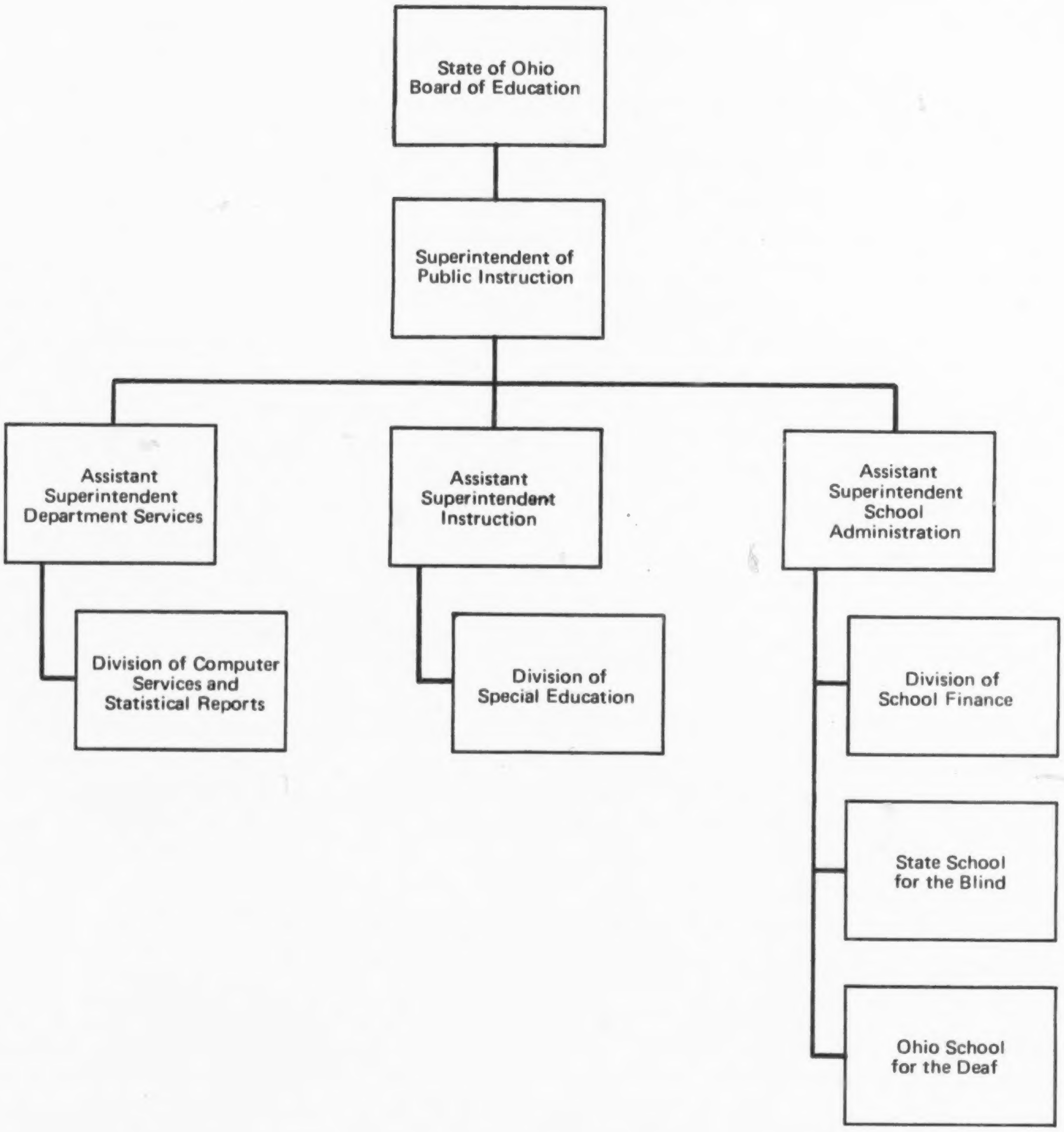
State of Ohio Board of Education
Superintendent of Public Instruction
Assistant Superintendent Department Services
Assistant Superintendent Instruction
Assistant Superintendent School Administration
Division of Computer Services and Statistical Reports
Division of Special Education
Division of School Finance
State School for the Blind
Ohio School for the Deaf

FIGURE 1. OHIO DEPARTMENT OF EDUCATION ORGANIZATIONAL CHART (SECTIONS RELEVANT TO MANPOWER REQUIREMENTS PROJECTION MODEL)

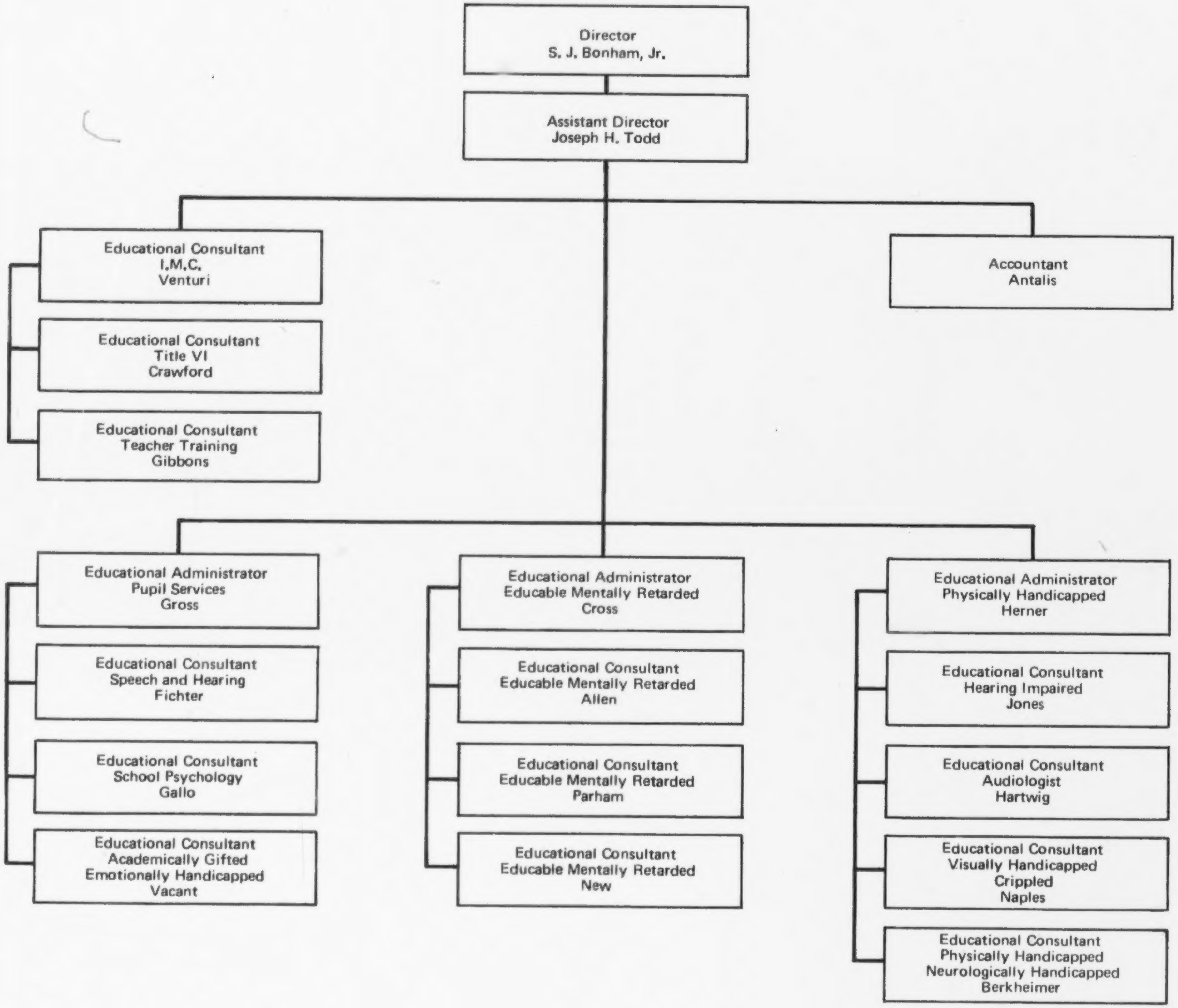
Director
S. J. Bonham, Jr.
Assistant Director
Joseph H. Todd
Educational Consultant
I.M.C.
Venturi
Educational Consultant
Title VI
Crawford
Educational Consultant
Teacher Training
Gibbons
Accountant
Antalis
Educational Administrator
Pupil Services
Gross
Educational Consultant
Speech and Hearing
Fichter
Educational Consultant
School Psychology
Gallo
Educational Consultant
Academically Gifted
Emotionally Handicapped
Vacant
Educational Administrator
Educable Mentally Retarded
Cross
Educational Consultant
Educable Mentally Retarded
Allen
Educational Consultant
Educable Mentally Retarded
Parham
Educational Consultant
Educable Mentally Retarded
New
Educational Administrator
Physically Handicapped
Herner
Educational Consultant
Hearing Impaired
Jones
Educational Consultant
Audiologist
Hartwig
Educational Consultant
Visually Handicapped
Crippled
Naples
Educational Consultant
Physically Handicapped
Neurologically Handicapped
Berkheimer

FIGURE 2. OHIO DIVISION OF SPECIAL EDUCATION

- Child Study
  - Psychologists
  - Interns
  - Visiting Teacher-Counselors
- Emotional Handicap
- Neurological Handicap

During the 1967-68 school year, over 200,000 children in Ohio's school districts received services or attended classroom units approved for school foundation support under the administration and supervision of this Division.

Of Ohio's school districts, 534 (or 78 percent) had one or more approved units in the various areas of Special Education during the 1967-68 school year.

IV. DATA ELEMENT EVALUATION

A number of specific data elements are necessary for the use of the Manpower Requirements Projection Model. The information which these data elements provide may also be very useful to the Division of Special Education for operational analyses. These data elements, their development, and their potential sources are discussed in the following paragraphs and summarized in Table 1 at the end of this report.

Enrollment

There is currently available in the Division of Special Education a significant amount of enrollment data. With few exceptions, the number of enrollees per handicap is available on a timely basis. On a more limited basis, age and educational program information is also available.

The availability of enrollment data is discussed in the following subsections by the type of school, i.e., public, state, and private.

Public Schools. The reporting of special education enrollment information from the local school district to the state begins with the request for pre-approval of special education units, which are defined by the group of handicapped children serviced by a special educator. The superintendent of each school district must indicate to the Division of Special Education by March 1 his plans for special education for the following year. This pre-approval cycle is based upon the additional and total units requested for each handicapping condition and educational level as shown on Form SE-P1.0 (Section X, p. D35-20). The form also shows the number of units approved and in operation for the current school year and the number of units planned for termination at the end of the current school year. From this survey, a tentative allocation of units in the Foundation Program is made based on the Department of Education's budget request. Since this reporting is intended for planning purposes and is based on the estimated need for the coming school year, such detailed data as ages is not available in the reporting cycle.

The actual approval of units occurs in the fall. The local school districts must make application for the special education units by October 3. The enrollment data for the units approval flows from the teacher of the handicapped to the principal, to the superintendent of the local school district or his designated representative, and finally, to the state level. Here the Division of Special Education approves the units in light of program standards, and then the Division of School Finance reimburses the local district. In the process of approval and reimbursement, a printout of the units is generated by the Division of Computer Services and Statistical Reports.

The forms employed for unit approval and their characteristics pertinent to the model data needs are summarized below. Representative and unique forms are shown in Section X according to the following listing.

Unit Form No.	Reporting Basis	Type of Handicap	Enrollee Age (Birth Date)	Educational Program	References Section X, Page
SE-01	Individual Student	Deaf	Yes		D35-20
SE-02	Individual Student	Hard of Hearing	Yes		
SE-03	Individual Student	Crippled	Yes		
SE-04	Individual Student	Visually Handicapped	Yes		
SE-05	Individual Student	Neurologically Handicapped	Yes		
SE-06	Individual Student	Emotionally Disturbed	Yes	Residential or Other	D35-21
SE-07A	Class	Educable Mentally Retarded (Slow Learning)	No, (Range, Youngest and Oldest Reported)		D35-22
SE-08	Individual Therapist	Speech and Hearing	No		D35-23
SE-09A,B	Individual Psychologist	Psychological	No		D35-24

The model requires the three data elements shown in the listing for each enrollee. These are the type of handicaps, the single year of age, and the educational program. The type of handicap and the age (or birth date) appear on all the unit application forms for the individual except the ones pertaining to the educable mentally retarded, the speech and hearing handicapped, or those requiring the care of a psychologist. These three handicaps are exceptions because of either the large number of students in the three groups (38,000 mentally retarded pupils enrolled in 1968-69 school year) or the high turnover rate in caseloads and the lack of automated tallying capability.

A class age range in months and ages of the youngest and oldest children in years and months is provided for classes of the educable mentally retarded on the application form SE-07A. In addition, the size of class is reported in the fall cycle.

The fall approval of units for school psychologists and speech and hearing therapy provides no data on age or number of cases. However, the annual year end report by the therapists includes the caseload enrollment by grade groupings.

The educational program is not explicitly stated on any of the unit application forms. However, the program can be deducted in some cases, such as residential programs on the emotionally disturbed unit form, the itinerant programs on the visually handicapped unit form, or where only one educational program is employed in the treatment of a given handicap.

In the cases where the educational program cannot be deduced, e.g., as resource room programs for the visually handicapped, a distinction would have to be incorporated on the form to satisfy the model needs.

Distinct from the approval cycle of the various special education units is the approval of individual instruction and the appropriate application forms. The forms employed for these individual services and their characteristics as they pertain to model requirements are summarized in the following listing. A representative form is shown in Section X, page D35-25.

Form No.	Reporting Basis	Type of Handicap	Enrollee Age (Birth Date)	Educational Program
SE 10 (A)	Individual Student	Physically Handicapped	Yes	Home Instruction
SE 10 (B)	Individual Student	Hearing Handicap	Yes	Individual Tutoring
SE 10 (C)	Individual Student	Visually Handicapped	Yes	Individual Tutoring
SE 10 (D)	Individual Student	Visually Handicapped	Yes	Reader Services
SE 10 (E)(F)	Individual Student	Neurologically Emotionally Handicapped	Yes	Special Instruction Services
SE 10 (G)	Individual Student	Severely Emotionally Handicapped	Yes	Home Instruction

This set of forms very adequately meets the enrollment data requirements of the model. These forms are submitted to Division of Special Education for approval as services are required, and then claims for reimbursement are made by August 1 following the school year. Although the number of students served by individual instruction is relatively small in comparison to those served in units, over 4,000 handicapped pupils received individual services in 1967-68. This type of service required more approval forms to be generated and handled than the unit class instruction, which serves over 90 percent of the handicapped children.

In addition to the annual approval cycles for both unit and individual instruction, the Division of Special Education maintains a comprehensive central file on all identified blind and deaf children in Ohio. This file includes a case history on each child which easily meets the data needs of the model. However, file maintenance and data retrieval is a manual operation.

State Schools. There exist two state schools for the handicapped: the Ohio School for the Blind and the Ohio School for the Deaf. Each has a residential and a day school program. The Director of Division of Special Education is a member of the admission board for both schools and his staff maintains the information concerning deaf and blind children in a central file. The enrollment information is available; but, manual retrieval of the data can be very time consuming.

Private Schools. There is an assortment of private schools for physically handicapped, sensory handicapped, and mentally retarded throughout the state of Ohio. However, no authority or communication channel exists for securing information. Model implementation would exclude these schools, at least in its initial stages.

Waiting List

Waiting list data, or the number of children identified as handicapped but not receiving recommended educational services, is virtually nonexistent at the state level, particularly for public schools. This information is generally available at the local level, where the responsibility for administering diagnostic services is vested.

The waiting list information for the Ohio State Schools for the Blind and Deaf is available through the central file maintained by the Division of Special Education. Usually the list are rather small because placement occurs soon after the board of admission makes such a recommendation.

Waiting list information for private schools is not available.

Children Moving Into and Out of the Identified Handicapped Child Population

At present, little explicit data on children entering and leaving the identified handicapped child population is available at the Division of Special Education. The model requires three specific data elements in this category, i.e., the newly diagnosed in need of special education, intrastate transfers, and attrition from the identified population. In each case, the age and handicapping condition must be known to project the size of the target group.

Because it maintains the central file on all the blind and deaf children, the Division has access to data on the movement of children nto and out of the two handicaps. In this case also, the lack of automated handling techniques would make this data hard to retrieve.

The only other information available in this category is the estimated attrition of units garnered in the pre-approval cycle. However, the usefulness of this data for the model's needs would be very limited. It is the movement of the children on an individual basis that is needed to project the size of the future target groups.

Except for the blind and deaf exceptionalities, the needed data elements will have to be developed if the model is to be implemented. The only feasible source of such data is apparently the local education agency.

More specifically, the source of data on the newly diagnosed would be the diagnostic team or individual; for the intrastate transfers and attrition, it would be the teacher. In all cases, the transmission of such data would go through the local district superintendent or his representative.

General Child Population Projections

The projections of general school age child population is available through Dr. Paul Spayde, the Assistant Superintendent of Department Services. The Division of Research, Planning and Development, which makes the projections, is within his purview.

Projected [illegible] cational Programs

Th [illegible] tor of the Division of Special Education and his staff will be able to estimate the future mix of educational programs on the basis of the past enrollment trends in the various programs, the policies and program emphasis for the future, and the emerging patterns of average treatment period per handicap.

Teacher/Pupil Contact Ratios

Teacher/pupil contact ratios are available by handicapping conditions in the programs where classes are conducted. These ratios are published in Program Standards and are promulgated in terms of a range on the basis of the age range of the class, the amount and type of regular education, the type of handicap, the educational level, and educational program.

For individual instruction programs, the teacher (or therapist, psychologist, etc.)/pupil contact is expressed in a variety of ways. Some of these expressions are readily convertible to a contact ratio while others are more nebulous and will probably require the use of experience or actual average ratios.

The use of aides has no impact on the class size from a policy standpoint. Their use is sporadic throughout the state, and although not certified, they are licensed.

Special Education Personnel

The number of special education personnel providing group and individual instruction is available in the same fall reporting cycle that generates the enrollment. The data is generated by the superintendent or a designated representative at the local school district. Some of the special education occupations are reported on separate forms, as shown in the following listing. A representative form is shown in Section X, page D35-26.

Form No.	Educational Occupation	Type of Handicap
SE-01-(F)	Teacher	Deaf
SE-02-(F)	Teacher	Hard of Hearing
SE-03-(F)	Teacher, Therapist	Crippled
SE-04-(F)	Teacher	Visually Handicapped
SE-07-(F)	Teacher	Educable Mentally Retarded

Other occupational information can be secured from the forms cited previously in the enrollment data section. In the case of the special educational manpower providing services for the (a) neurologically handicapped (b) emotionally disturbed (c) speech and hearing handicapped (d) child study, the forms used for approval of the unit provide the necessary data to fulfill the model data needs adequately.

Prevalence Rates

Prevalence rates have been developed in Ohio and are available. They are used for estimating the total handicap child population, which can in turn be used to establish a ceiling on special education manpower needs. These rates, which must be updated and validated periodically if the estimates are to be valid, provide a basic step in the use of the model.

V. PROCESSING POTENTIAL

Hardware

Within the Department of Education, Division of Computer Services and Statistical Reports (DCSSR) there exists sufficient hardware capability to meet the needs of the model. The basic computer is a Honeywell 200 with 65K memory core and five tape drives. However, all programs are in COBOL language. Such languages as FORTRAN, in which the model is programmed, are not permitted as a matter of policy. Ancillary hardware includes an 083 sorter and 557 IBM interpretor.

The DCSSR does have the authority to rent computer time. At present it is renting time from two sources including a state university.

In addition to the hardware capability at the central complex, there are 22 computer installations presently serving 138 school districts, or 20 percent of the total, and 1,000,000 children, or 50 percent of the student population. This hardware is primarily UNIVAC or IBM type.

A high level state government study was addressed to the concept of regional centers at the time of the visit in December. The report was due for release in January, 1970. It was expected that the present installations would be combined and coverage extended to the entire state with perhaps 12 to 22 regional computer centers and eight large city installations. The organization of these centers, which would be based on third generation equipment, was thought to lie several years in the future.

Personnel

The Division of Special Education has access to state operated programming services in the DCSSR. These services are also primarily COBOL oriented. There is very limited FORTRAN experience on the staff. File maintenance, including any required programming, is done in-house. The programming required for new systems can be done in-house or contracted to a vendor depending on the circumstances. Usually several contracts for programming by a vendor are in progress at any time. While there is keypunch capability within DCSSR, approximately 85 percent of keypunching or production work is done by a vendor.

The DCSSR staff that would be capable of using the model or interpreting results is extremely limited.

Processing

Presently the DCSSR has a file on special education teacher information and enrollment. The handicap enrollment is only by total within a school district.

The DCSSR staff is presently planning systems that would break out handicap enrollment by type of exceptionality. Coordination between DCSSR staff and the Division of Special Education is necessary to ensure the responsiveness of the system to Special Education data needs.

While the Division of Special Education will in the long term find it advantageous to participate in the development of the internal computer educational systems, the implementation of the model using data collected by the Division itself may require the use of an outside service bureau. In any case, the implementation of the model will impose manpower and financial requirements on the Division of Special Education. These requirements are discussed in Section VIII.

5

VI. ADDITIONAL FACTORS

The responsibility and authority at the state level for mentally retarded children and adults not classed as educable (i.e., trainable, severe, and profound) is vested in the Department of Mental Hygiene and Correction, Bureau of Mental Retardation. This operation, including programs and funding (of which none is federal) is independent of and separated from the Department of Education and its program for the educable mentally retarded. While the Bureau sets standards and guidelines for these mentally retarded, it is the local school districts which own and operate the facilities and hire the personnel to conduct the programs and care for these types of mentally retarded.

The educable mentally retarded are at present the predominant exceptionality by almost five to one in terms of units. However, it is anticipated by the Director of Special Education that the learning and behavioral disabilities will increase dramatically in the near future. The use of the model in predicting the size of the target groups in these exceptionalities and the necessary educational manpower can be of considerable value in planning for this change in emphasis.

The educational system of the State of Ohio is divided into approximately 691 reporting entities, i.e., county, city, exempted village, and local school districts; 534 participate in one or more special education programs. Since there are presently no functioning intermediate levels, any data solicited from these local sources would be summarized at the state level.

The Division of Special Education appears to have reached the saturation point in the manual tabulation of the returns from the 534 local school districts. Given the expected growth in the number of children to be served (over 200,000 in 1968) and the number of reporting entities, the Division of Special Education is going to be forced into requesting a higher level of detail in the reports on children receiving special educational instruction or services if automated or electronic data are not available. A high level of detail, or lumped method, of enrollment reporting would be undesirable from the standpoint of the model data needs.

VII. RECOMMENDATIONS

The following recommendations would, upon implementation, provide for the information flow of data elements necessary to the utilization of the Manpower Requirements Projection Model and improve the quality of information available for special education program management.

To achieve basic implementation of this model in the State of Ohio, it is recommended that:

1. Where more than one educational program may be employed in requesting unit approval for a given handicap, and the educational program cannot be

determined from present reporting, then a method of indicating the program be included on the unit approval forms used in the fall reporting cycle.

2. The range of pupil ages in educable mentally retarded units, which can be as large as four years, be supplemented by an average class age for interim use of the model, but when automated handling of the forms is feasible, the age range be replaced or supplemented by single year of age. See suggested modification to Form SE-07, Section X, page D35-27. When the age range within a unit of 12 months or less, reporting will be equivalent to the reporting of single year of age.

3. The central file on blind and deaf children in Ohio be automated to make feasible the retrieval of data elements needed for the model.

4. Waiting list information and those newly diagnosed as needing special education by age and handicap is developed at the state level by means of forms presently "suggested," e.g., Periodic Report to Superintendent - Speech and Hearing Services, or by means of new forms. Waiting list data is needed by the model in conjunction with the enrollment data submitted in the fall of each year.

5. Age and handicap information of children transferring intrastate and the age, handicap, and reason of those attriting from special education be collected at least once a year preferably at the year's end to measure the changes in the size of target groups established by enrollment data from the beginning of the year.

6. The mix of enrollments by education program, e.g., resource room and residential special class, be projected by the Division of Special Education on the basis of historical enrollment trends, projected policy changes, or emphasis and patterns of the span of special education for the various handicaps.

7. The Manpower Requirements Projection Model be utilized at the following times

   a. In November-December of each year once the fall enrollment data has been collected and tallied. Out of the model at this time will provide planning information prior to the beginning of the calendar year and the pre-approval cycle.

b. In February-March of each year once the pre-approval forms have been received for the fall enrollment estimates. This will aid in determining the impact on the teacher corps for the fall.

c. In the summer of each year once the changes to the previous fall enrollment and the speech end hearing handicap population have been received from the local school districts at the end of the school year.

8. Liaison to the DCSSR be established by the Division of Special Education to coordinate and influence the data reporting plans being developed at DCSSR insofar as they affect Special Education. This liaison can be the mechanism for providing Special Education with the data and data services required now and in the future. More specifically, a liaison can assist in the development of coding structures compatible with the types of handicaps, educational programs and teachers, identification of data elements and systems needed for various functions including compliance, service, funding, and planning, including the requirements of the model.

The recommendations and considerations offered, if implemented, should result in successive improvements in the completeness and the accuracy of the data elements required by the model, with validity being achieved within a few years. Later documents pertaining to this project contain additional information about methods which may be used to estimate some of the data elements until a good information flow is developed and validated.

VIII. RESOURCE REQUIREMENTS—MANPOWER

The Division of Special Education in the Ohio Department of Education will require assistance in implementing the recommendations made in Section VII In addition to the cooperation and assistance of the various agencies at the state and local levels which will be involved in implementing and maintaining or operating the Manpower Requirements Projection Model, a systems analysis capability will be required in both phases.

This talent is required at the time of implementation to aid in modifying and designing keypunchable forms and in programming and designing the system.

In addition, the systems analyst(s) should assist in training state and local personnel, writing procedures, and coordinating technical aspects among the various groups exchanging data and results. The estimated manpower requirements for the implementation phase (2-3 years) includes 3 man-months of special education staff effort, 1 man-month of forms design work, 4 man-months of systems analyst time, and $1\frac{1}{2}$ man-months for programming.

In the operation of the system, i.e., once system implementation is achieved, the systems analysis capability will again be required to ensure quality control and to refine and improve the data flow, as well as updating the training of the suppliers to and users of the model. This effort will require approximately 1 to 2 man-months per year thereafter.

The source of this systems analysis talent for the implementation phase will have to be additional staff or external personnel. For the maintenance phase, the internal education processing group may be capable and willing to provide the systems analysis service. If not, additional staff or personnel from an external source will again be required.

IX. PERSONS INTERVIEWED

The persons interviewed by the Operations Research, Inc. (Leasco) representative, Mr. Joe Kelly, during the December visit to Ohio were:

Mr. S.J. Bonham, Jr.	Director, Division of Special Education, Department of Education
Mr. Patrick D. Gibbons	Educational Consultant, Teacher Training, Division of Special Education, Department of Education
Mr. John Parsons	Assistant Superintendent, School Administration, Division of School Finance, Department of Education
Mrs. Christina C. Jones	Educational Consultant, Hearing Handicapped, Division of Special Education, Department of Education
Edward Grover	Superintendent, State of Ohio Deaf School, Department of Education
Mr. Donald Overbeay	Superintendent, State of Ohio Blind School, Department of Education
Dr. Roger Gove	Director, Division of Mental Retardation, Department of Mental Hygiene and Correction
Mr. Harry Wolford	Supervisor, Field Services Section, Division of Computer Services and Statistical Reports, Department of Education
Mr. Charles Cantwell	Supervisor, Computer Services Section, Division of Computer Services and Statistical Reports, Department of Education

X. CURRENT REPORT FORMATS

Included in this section are samples of the existing and proposed forms in Ohio for collecting information pertinent to the needs of the Manpower Requirements Projection Model as described in the foregoing sections. The existing forms included are:

Form SE-P1.0	Pre-Approval of Special Education Units
Form SE 01	Application for Approval of Special Education Unit for Deaf
Form SE 06	Application for Approval for Special Education Unit for Emotionally Disturbed Children
Form SE-07A	Application for Approval of Special Education Units for Educable Mentally Retarded Children
Form SE-08	Application for Approval of Special Education Units in Speech and Hearing Therapy
Form SE-09-A,B	Application for Approval of Special Education Units for School Psychologists
Form SE 10 (A)	Application for Home Instruction for Physically Handicapped Child
Form SE 01 (F)	Teacher Qualifications - Special Education Units for Deaf Children

A suggested modified form included is:

Form SE-07A	Application for Approval of Special Education Units for Educable Mentally Retarded Children

Submit in Quadruplicate
before March 1, 1969

Form SE-P1.0
Revised 1/69

Ohio Department of Education
DIVISION OF SPECIAL EDUCATION
3201 Alberta Street, Columbus, Ohio 43204

PRE-APPROVAL OF SPECIAL EDUCATION UNITS

1969-70 School Year

	I Approved Units 1968-69	II Units Terminating June, 1969	III Units Operating but not Approved 1968-69	IV Additional Units Requested 1969-70	V Total Units Requested 1969-70
DEAF					
HARD OF HEARING					
VISUALLY HANDICAPPED					
CRIPPLED					
NEUROLOGICALLY HANDICAPPED					
EMOTIONALLY HANDICAPPED					
Residential					
Day School					
EDUCABLE MENTALLY RETARDED					
Primary					
Intermediate					
Jr. H. S.					
Sr. H. S.					
Other					
SPEECH & HEARING THERAPY					
CHILD-STUDY					
School Psychologist					
Intern Psychologist (1)					

(REPRODUCED FROM STATE FORM)

(1) Units for interns are assigned to universities for placement in approved intern training centers.

NOTE: Please discuss the need or justification for expansion of special education programs or services. This information must be provided on the reverse of this sheet if you wish your request to be given full consideration!

County

School District

Date

Superintendent's Signature

Submit in Triplicate

Form SE 01

OHIO DEPARTMENT OF EDUCATION
DIVISION OF SPECIAL EDUCATION
3201 ALBERTA STREET, COLUMBUS, OHIO 43204

APPLICATION FOR APPROVAL OF SPECIAL EDUCATION UNIT FOR DEAF

Name of School ______________ School District ______________ County ______________

Name of Pupil	Birth Date	Psychological Data			Hearing Loss			No. of Years in School	County and School District for Tuition Pupils*
		Test	I. Q.	Date	Right	Left	Date Tested		
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									

(REPRODUCED FROM STATE FORM)

Approved ______________ A. D. M. ______________

Rejected ______________

____
Director, Div. of Sp. Ed.

Date ______________

Signature ______________
Superintendent or Designated Representative

Title ______________

Name of Teacher ______________

Number of years in present assignment ______________

*Form SE 01 (F) must be completed for all teachers new to program.

Submit in Duplicate
by October 1

Form SE-06
Rev. 8/66

OHIO DEPARTMENT OF EDUCATION

DIVISION OF SPECIAL EDUCATION

3201 ALBERTA STREET, COLUMBUS, OHIO 43204

Application for Approval of Special Education Unit for Emotionally Disturbed Children

Approval of these special education units is contingent upon maintenance of minimum standards established by the State Board of Education.

Name of School__________ School District__________ County__________

Name of Pupil	Birth Date	C. A.	I. Q.	*Is child under an active psychiatric treatment program		Does child's file contain a full psychological report	
				Yes	No	Yes	No

(REPRODUCED FROM STATE FORM)

*Complete only for those students enrolled in a residential treatment program.

Name of Teacher__________

Does teacher hold valid certificate for assigned area of teaching:______ Yes ______ No

Number of days per week assigned to instruction in Emotionally Disturbed Unit__________

Is teacher under legal contract with your Board of Education:______ Yes ______ No

Date of Application__________ __________

Signature of Superintendent or designated representative

Unit Approved______ A. D. M.______

Date Approved__________ Approved by__________

Director of Special Education

SUBMIT IN DUPLICATE

Form SE-07A
Rev. 1968

OHIO DEPARTMENT OF EDUCATION

DIVISION OF SPECIAL EDUCATION

3201 ALBERTA STREET. COLUMBUS. OHIO 43204

APPLICATION FOR APPROVAL OF SPECIAL EDUCATION UNITS FOR EDUCABLE MENTALLY RETARDED CHILDREN (SLOW LEARNING)

Name of District ____________________

COUNTY ____________________

DO NOT WRITE BELOW

No. Units Approved	
Date of Approval	
Recommended By	

PLEASE NOTE:
The data requested on this form is required for funding purposes. THEREFORE, PLEASE REFER TO DETAILED INSTRUCTIONS INCLUDED ON *SIDE 2 BEFORE* COMPLETING THIS FORM.

Part I: Unit Data

(1)	(2)	(3)			(4)	(5)		(6)
Building Name (Alphabetically)	Regular Grades Housed	AGES			Class Size	I. Q. Range		Teacher (First, MI, Last)
		Y	O	R		From	To	
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								

(REPRODUCED FROM STATE FORM)

Part II: Full-Time Supervisors and Full-Time Work-Study Coordinators of Educable Mentally Retarded Programs ONLY

(a)	(b)	(c)
Individual's Name	Position Held	Supervisor's Certificate Number
1.		
2.		
3.		

Submit in Duplicate
before October 1st.

Form SE-08
Rev. 8/66

OHIO DEPARTMENT OF EDUCATION

DIVISION OF SPECIAL EDUCATION

3201 ALBERTA STREET, COLUMBUS, OHIO 43204

Application for Approval of Special Education Units in Speech and Hearing Therapy

Approval of these special education units is contingent upon maintenance of minimum standards established by the State Board of Education.

School District ______________________ County ______________________

Name of Speech Therapist (Designate Miss, Mrs., Mr.)	Number of Certificate	Days Per Week Employed	Number of Centers Assigned

(REPRODUCED FROM STATE FORM)

To whom is each therapist immediately responsible? (exclude principals)

____

Unit (s) Requested ______________________ School District Enrollment (K-12) ______________________

Date of Application ______________________
Signature of Superintendent or designated representative

Units (s) Approved ______________________

Date Approved ______________________ Approved by ______________________
Director of Special Education
State Department of Education

Submit in Duplicate
before October 1st

Form SE-09-A, B
Rev. 8/66

OHIO DEPARTMENT OF EDUCATION

DIVISION OF SPECIAL EDUCATION

3201 ALBERTA STREET. COLUMBUS. OHIO 43204

Application for Approval of Special Education Units for School Psychologists

Approval of these special education units is contingent upon maintenance of minimum standards established by the State Board of Education

School District ______________________ County ______________________

Name of Psychologist	Does he hold a valid certificate as a School Psychologist in the State of Ohio*		Number of days per week spent doing *individual child-study.* (Include individual evaluation, teacher and parent conferences, writing reports, and related follow-up activities)
	If yes, give Cert. No.	No	

(REPRODUCED FROM STATE FORM)

* If Intern, please indicate temporary certificate in "Yes" column.

Units Requested ______________________ Total Enrollment (K-12) ______________________

Date of Application ______________________ ______________________
Signature of Superintendent or designated representative

Units(s) Approved ______________________

Date Approved ______________________ Approved by ______________________
Director of Special Education

Submit in Duplicate

Form SE 10 (A)

OHIO DEPARTMENT OF EDUCATION

DIVISION OF SPECIAL EDUCATION

3201 ALBERTA STREET, COLUMBUS, OHIO 43204

APPLICATION FOR HOME INSTRUCTION FOR PHYSICALLY HANDICAPPED CHILD

(To be completed by Superintendent of Schools or Professional Staff Member so Delegated)

NAME OF CHILD ____________________ COUNTY ____________

PARENT'S NAME ____________________ SCHOOL DISTRICT ____________

HOME ADDRESS ____
(Street or rural delivery) (City)

Child's Birth Date __________ Grade in School __________ Sex __________

*Test Results: ____
(Name of Test) (Date Given) (I.Q.)

*Necessary if: Retarded in grade placement, or beginning first grade to determine readiness.

Date child last attended school ____________________

Has Home Instruction been started for this year? __________ If so, beginning date __________

New Application __________ Application for Renewal __________

Application for __________ School Year

Date of Application __________

(REPRODUCED FROM STATE FORM)

____
Superintendent of Schools

____
Address

PHYSICAN'S REPORT

(To be filled out by attending physician)

NAME OF CHILD ____________________ DATE OF MEDICAL EXAMINATION __________

DIAGNOSIS: ____

Is this child's physical handicap serious enough to confine him to his home? __________

Specify reason ____

Probable period of disability: ____

*Approved: Yes ______ No ______

Date ____________________

____
Director, Div. of Sp. Ed.

(Signed) ____________________
Name of Physician

Address ____________________

Date ____________________

*The Division of Special Education will reimburse $1.50 per hour on home instruction at a rate of not less than $3.00 per hour and one half of the actual cost in excess of $3.00 not to exceed $6.00 per hour nor five hours per week.

Payment shall not be made for students receiving less than 20 hours of instruction during the school year.

Submit in Duplicate

Form SE 01 (F)

OHIO DEPARTMENT OF EDUCATION
DIVISION OF SPECIAL EDUCATION
3201 ALBERTA STREET, COLUMBUS, OHIO 43204

TEACHER QUALIFICATIONS—SPECIAL EDUCATION UNITS FOR DEAF CHILDREN

Section EDb-215.01—State Board of Education Standards

Name of Teacher ____

Name of School ____

Name of School District ________________________________ County_______________

Transcript of credits on file in the Board of Education Office indicates ne of the following. Please check the appropriate section.

______ 1. Teacher holds the special certificate to tea[illegible] [illegible]ildren.

______ 2. Teacher holds a standard elem[illegible] [illegible]ondary or special certificate validated for teaching deaf children.

(REPRODUCED FROM STATE FORM)

______ 3. Teacher holds a [illegible] [illegible]icate issued prior to September 5, 1935.

______ 4. Teacher is not certificated to teach deaf children as prescribed in Ohio Certification Standards effective September 1963.

______ a. Teacher has filed a letter of intent to complete training as prescribed in Administrative Criteria, effective September 1963. Date of letter________

Date__________________ Name____
Superintendent or Designated Representative

SUBMIT IN DUPLICATE

Form SE-07A
Rev. 1968

OHIO DEPARTMENT OF EDUCATION
DIVISION OF SPECIAL EDUCATION
3201 ALBERTA STREET, COLUMBUS, OHIO 43204

APPLICATION FOR APPROVAL OF SPECIAL EDUCATION UNITS FOR EDUCABLE MENTALLY RETARDED CHILDREN (SLOW LEARNING)

Name of District ____________________

COUNTY ____________________

DO NOT WRITE BELOW

No. Units Approved	
Date of Approval	
Recommended By	

PLEASE NOTE:
The data requested on this form is required for funding purposes. THEREFORE, PLEASE REFER TO DETAILED INSTRUCTIONS INCLUDED ON *SIDE 2 BEFORE* COMPLETING THIS FORM.

Part I: Unit Data

(1)	(2)	(3)			(4)	(5)		(6)
Building Name (Alphabetically)	Regular Grades Housed	AGES			Class Size	I. Q. Range		Teacher (First, MI, Last)
		Y	O	R		From	To	
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								

(REPRODUCED FROM STATE FORM)

Age Summary of Classes

Age	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total
Number																			

Part II: Full-Time Supervisors and Full-Time Work-Study Coordinators of Educable Mentally Retarded Programs ONLY

(a)	(b)	(c)
Individual's Name	Position Held	Supervisor's Certificate Number
1.		
2.		
3.		

OHIO
SUMMARY OF DATA DEVELOPMENT STATUS
TABLE 1

DATA ELEMENTS			PUBLIC SCHOOLS			STATE SCHOOLS FOR BLIND AND DEAF			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Available except EMR	Modification of Forms SE-01 to SE-09 and automated handling	Local district superintendent	Available	Automatic file maintenance and retrieval	Central file in Division of Special Education	Not available
		HANDICAPPING CONDITION	Generally available			Available			Not available
		EDUCATION PROGRAM	Can be deduced in limited number of handicaps			Available			Not available
	ON WAITING LIST	AGE	Not available	Design new form us use suggested forms	Local district superintendent	Available	Automatic file maintenance and retrieval		Not available
		HANDICAPPING CONDITION	Not available			Available			Not available
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not available	Design new form or use suggested forms	Local district superintendent	Available	Automatic file maintenance and retrieval		Not available
		HANDICAPPING CONDITION	Not available			Available			Not available
	INTRA-STATE TRANSFERS	AGE	Not available	Design new form or use suggested forms	Local district superintendent	Available	Automatic file maintenance and retrieval		Not available
		HANDICAPPING CONDITION	Not available			Available			Not available
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Not available	Design new form or use suggested forms	Local district superintendent	Available	Automatic file maintenance and retrieval		Not available
		HANDICAPPING CONDITION	Not available			Available			Not available
		REASON	Not available			Available			Not available
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Available						
DATA USED TO SIMULATE SPECIAL EDUCATION	PROJECTED ENROLLMENT MIX OF EDUCATION PROGRAMS		Not available	Projection by Division of Special Education	Historical trends, policy, treatment patterns				
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Available			Available			
		EDUCATION PROGRAM	Available			Available			
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Available			Available			

OKLAHOMA STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

OKLAHOMA STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state education characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Oklahoma, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 2 at the end of this report.

II. SUMMARY

Oklahoma is currently receiving data from the local education agencies and other state agencies providing special education services but the set of data elements collected is incomplete for Manpower Requirements Projection Model needs. Using the good rapport and the existing data flow between the local and state agencies and the Division of Special Education upon which to build, Oklahoma should have little problem developing a more complete and automated information system relating to the handicapped child population. A possible minor problem could arise in an attempt to develop a data flow between the local education agencies who do not provide any special education services and the Division of Special Education. All factors considered, a special education information system has a high probability of being developed and implemented in a relatively short period of time.

The data processing hardware available for use by the Division of Special Education has the capability of handling both the model input data processing program and the programmed model itself.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

Within the Oklahoma Department of Education, the Division of Special Education is responsible for the planning and operation of special education programs in the approximately 300 local school districts (some of which join to provide county and cooperative programs) and in the state hospital for the physically handicapped in Oklahoma City. Since all of the educational programs in the state institutions for the mentally handicapped/retarded (run by the Department of Welfare) and for the emotionally disturbed (run by the Department of Mental Health) are operated by the local school districts under contracts with the respective Departments, these programs are also the responsibility of the Division.

Only the two state schools (one each for the blind and deaf), run by the Department of Welfare, are not the direct responsibility of the Division of Special Education. However, the Division receives data about enrollments and personnel employment from these schools because the Division is responsible for the administration of PL89-313 funds.

Privately sponsored special education programs are not within the control of the State Department of Education but the problem of data about these programs seems small because the number of children involved is not great. One of the major private schools for the mentally handicapped/retarded does report data to the Department of Education because the children attend regular public school about half of each day, but the data does not describe the special education services that the children are receiving.

IV. DATA ELEMENT EVALUATION

In 1968-69, out of approximately 300 local school districts in Oklahoma, 120 provided some type of special education services either directly through the school district or through a county or cooperative program. All of the data for this locally sponsored special education (which includes that provided to the residents of state institutions) that are currently collected originate from the classroom teachers and speech therapists. Data for two state schools are reported by their administrators. In the following paragraphs, the data elements needed by the Manpower Requirements Projection Model and by the state for planning purposes are discussed in terms of their availability and development potential.

In Oklahoma a mandate exists that a register must be kept of all handicapped children in the state. However, lacking a systematic and comprehensive diagnostic system to identify all these children, rather than maintain a register of the smaller, currently identified population, no register is kept. If this practice is not altered, all the data elements may be developed and collected in summary form (e.g., totals by age and handicapping condition). But, if the state desires to maintain a register of all identified handicapped children, the data should be developed and collected by individual child name (or eventually by child code number if social security numbers are assigned to children in the future) and the automated information and processing system used to maintain the register should be a modification of a Pupil Accounting System (PAS). Both alternatives are presented for the development of each data element.

Identified Handicapped Population

The number of children enrolled in special education, the first component of the most important data element (the number of children identified as needing special education) is currently reported at the beginning of the academic year in class list form by each special educator in the Local Education Agencies (LEA) and in summary total form by the two state schools. The school district enrollments are not reported by educational program and those from the state schools are not reported by age but minor modifications of the current forms would remedy this. If all data is to be processed in summary form, a two-row matrix could be added to the LEA form ("Application for Conditional Preapproval of Plan for Special Education for Handicapped Group") to request each teacher to total his pupils by age. Thus, all of the enrollment data needed for model input could be collected.

If the data are to be kept by child name at the state level and if it is not important to retain the teacher name or code in each child's data record, the reporting of enrollments by total class every fall could be replaced by having an authorized officer of each school district update an automated list of the previous year's enrollments and waiting list. If the teacher identification is needed, each child's record could be updated. This type of system in which the data are recycled would eliminate the need for fall enrollment forms, would reduce the data reporting task of the LEA, and would increase the validity of the data.

Currently, the number of children on special education waiting lists, the second component of the identified handicapped child population, is incomplete at, and not collected from, local education agencies. However, if the local agencies can be convinced of the value of their and the state's keeping track of this data for planning purposes or if the mandate is observed (voluntarily or involuntarily), a request for the number or names of children on that waiting list, by age and handicapping condition at the beginning of the year, could be made on a form similar to the enrollment form as modified. State schools and institutions could use the same form to report their waiting lists.

If the waiting list data are reported by child name by the LEAs and state schools and institutions, it will be easier to eliminate duplications in the data. Such duplications will occur if a child who is on a waiting list at a state school is either enrolled or on a waiting list at the local school district. Having both the enrollment and waiting list data reported by child name and maintaining a register at the state level, an automated processing system could easily eliminate duplications and produce automated lists of each district's identified handicapped child population and the status of each child. These lists could then be sent to each district for annual updating, rather than recollecting all of the data each year. Such a recycling of the data would increase local involvement in the use of the reported data, resulting in more accurate data over time.

Unidentified Handicapped Population

Since no complete and systematic diagnostic referral system now exists at the state or local level, data on the unidentified handicapped child population will probably have to be estimated using Oklahoma's published prevalence rates rather than an estimate of the diagnostic waiting list and the potential undiagnosed population. The published prevalence rates, estimated based upon national and other published rates, are:

- Blind and partially seeing - 0.25%
- Deaf and hard-of-hearing - 2.0%
- Children with learning disabilities - 2.0%
- Emotionally disturbed - 2.0%

- Educable mentally handicapped - 3.0%
- Trainable mentally retarded - 0.3%
- Physically handicapped - 0.3%
- Speech correction - 5.0%.

Using prevalence rates is an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternative methods of validating these rates.

Entrants and Attritions

Information about the numbers of children moving into and out of the identified handicapped child population is partially collected. Data on new entrants to that population are limited to those children entering special education and data on attritions from that population are collected for the enrolled population only. Both sets of data are requested on a year-end supplemental form which is filled out by the classroon teacher.

The attritions are categorized into two "reasons for leaving"—regular class and other—but there is no way to separate the entrants' data into three categories—newly diagnosed, intra-state transfer, and entered from waiting list.

Due to the lack of a structured diagnostic reporting system (i.e., all or most of the diagnoses reported to a central source, e.g., the local school district), the number of children newly diagnosed as needing special education cannot now be completely and accurately collected in Oklahoma. The local district is recommended as the central source because it is there that a child is processed to deem eligibility for special education. Division of Special Education personnel indicated that most of the diagnosis of Educable Mentally Handicapped children is done by local school personnel, but that it would be difficult to set up a local diagnostic system for most of the remaining handicaps because of the shortage of licensed psychologists required by such a system. Thus, the cooperation of all other state agencies and private physicians diagnosing children must be enlisted.

Cooperative arrangements could be made between the Department of Education and the Department of Health (which operates 21 guidance centers), the Department of Welfare (which operates the state schools and the state institutions for the mentally handicapped/retarded), the Department of Mental Health (which operates the state institutions for the emotionally disturbed), and private physicians and/or psychologists to affect the reporting of these newly diagnosed children to the applicable local school district by child name, age, address, parent name, and handicapping condition. The authorized officer responsible for special education in each school district could then be queried for individual children's names and records or for totals by age and handicapping condition of those children who are newly identified as needing special education.

Such data on new entrants and intra-state transfers (new entrants to a local district who have been previously diagnosed by another district within the state) can be collected either at year end or periodically during the year, depending upon the type of information system (child record or numeric totals), the level of automation, and the degree of currentness desired for the system. This data need not be reported to the state by child name unless the enrollment and waiting list data are also reported by child name. If the data are being reported by name and an automated list of the identified handicapped children is being sent to the local districts at the beginning of the year, it would be preferable to have that list updated, with new entrants added and attritions (also discussed below) noted, and a copy forwarded to the state at the end of the year.

Information about attritions from the total identified handicapped population can be developed in a manner similar to that discussed above for entrants. There are four alternative methods for collecting attrition data by age, handicaps, and reason for attrition (e.g. return to normal education, moved out of district). The first two are based upon the assumption that enrollment and waiting list data are kept separately at the local level and involve these data being reported separately, either by child name or numeric totals. In this case, children who transfer from the waiting list to the enrollment list should not be counted as either an attrition from the former or an entrant to the latter. The last two methods are the reporting, again either by child name or numeric totals, of attritions from the enrollment and waiting lists combined. Here too, if the reports are by child name and an automated list of the identified handicapped children is being sent to the local districts, it would be preferable to have that list updated, with attritions noted and coded by reason, and a copy forwarded to the state at the end of the year.

Attritions from the state schools and institutions are not currently tabulated or reported to either the Division of Special Education or the local districts in which the children reside. If each local district is made responsible for maintaining its own register of handicapped children (facilitated by automated lists sent to them by the state), attritions from the state schools and institutions could be reported by child name to and validated by the appropriate LEA and could be included in the LEA's report to the state. Otherwise, these state sponsored programs could be asked to report their attritions, either by name or numeric totals, directly to the Division of Special Education.

Other Data Elements

Projections of Oklahoma's school age population, used in conjunction with incidence rates by the Manpower Requirements Projection Model to calculate the projected number of new entrants into the handicapped child population, are made annually by the Bureau of Research at Oklahoma University in Norman (published in the "Oklahoma Data Book") and by the Research and Planning Division of the Oklahoma Employment Security Commission in Oklahoma City (published in "Oklahoma Population Estimates"). These projections can easily be broken down by single year of age.

The Director of the Special Education Division and/or his staff of consultants can provide the data needed to simulate special education. Thus, no further development effort is needed for these data elements:

- Trends in the number or proportion of enrolled children being served in each educational program, by target group (an educationally meaningful combination of handicapping condition and education level); termed educational program mix
- The types of personnel (occupations) serving each target group in each educational program and their associated personnel/pupil contact ratios.

If Oklahoma wishes to collect data on the numbers of special education personnel employed, by type, in order to calculate the current manpower gap, data development would require a minimum of effort . Names of special education teachers employed, by type, are currently collected on the fall enrollment reports. With slight modification of that report format, information about other special education personnel, including paraprofessionals, could easily be obtained and tabulated.

V. PROCESSING POTENTIAL

Currently, systems analysis and data processing services for the Departments of Education and Vocational Education are provided by the Oklahoma Department of Education Research and Data Control. This latter Department maintains a RCA Spectra 70/35 computer (with a FORTRAN compiler) and four magnetic tape drives,which is adequate to handle a special education information system and the programmed Manpower Requirements Projection Model. In the near future, computer time will probably not become a constraint on the Division of Special Education's use of services of the Department of Education Research and Data Control, but the Department's administrator indicated that his shortage of professional staff could become an important constraint.

Dr. Walraven is in favor of using the mathematical model to project special education manpower requirements, and he and his staff are capable of preparing the input for and analyzing and evaluating the output from such a model. He indicated a willingness to undertake any work necessary to assist and direct the implementation of a special education data collection and processing system.

VI. ADDITIONAL FACTORS

Mentioned here again, for purposes of emphasis, is the fact that it is difficult to set up special education diagnostic systems at the local level. Each such system would require a licensed psychologist, but, since the monetary compensation which a local district could offer is well below that which they can earn in private practice, these psychologists are not attracted to employment by the local school district. A possible solution under consideration is the establishment of regional diagnostic centers supported by funds from many local districts or directly by state funds.

The Division of Special Education is responsible for administering the homebound program and the visiting counselor program in each local school district. Currently, the homebound program does not generate any special education personnel requirements; because no special certification is required, regular education teachers are employed in this program. Additionally, since the Division has found that the number of children needing homebound services has not varied appreciably from year to year, the requirements for personnel in this program have been relatively stable.

Similarly, the visiting counselor program no longer generates any specific special education personnel requirements. Each visiting counselor is essentially a school social worker and works with children who are not classified as handicapped. In the past, these counselors acted as truant officers in Tulsa and performed most of the diagnostic testing in Oklahoma City—the latter duty was probably the reason that the program was originally assigned to the Division of Special Education.

It is appropriate to discuss in this section some of the problems which the Division of Special Education will encounter in the implementation of a complete data collection system. In some of the Oklahoma counties (and thus the local districts), it is difficult to organize special education programs because the counties are sparsely populated. This lack of local special education service has some implications on the development of a statewide information system and on the data required by the model. One is that, due to lack of local service, parents and teachers are not encouraged to have potentially handicapped children diagnosed unless they might be eligible for admission to a state school or institution. Thus, even in the future, data on the rate at which children are diagnosed as needing special education in those districts will not reflect the actual new incidence of handicapping conditions. Also, special education waiting list data, which ideally should represent the total unserved handicapped child population, would underestimate that unserved population, the extent of the underestimation being in question because of the unknown number of unidentified children. However, if it can be assumed that the handicapped child population in these local districts is small, the lack of complete data is not likely to adversely affect the validity of statewide data tabulations.

The only other significant problem which may occur concerns the establishing of the cooperative arrangements, between state level agencies and with private physicians, and/or psychologists needed to set up diagnostic reporting procedures which are a prerequisite to the collection of accurate and complete data on the newly diagnosed handicapped child population. The effect of such arrangements on increasing communication between state sponsored clinics, etc., and local school districts is still a question-mark, as is the method to be used to increase communication between the persons providing the private diagnostic services and the local districts.

VII. RECOMMENDATIONS

In order to provide for data needs of the Manpower Requirements Projection Model and other data requirements of the Division of Special Education, it is recommended that Oklahoma consider either a data summary type of system (in which the data elements are summarized into categories by the local districts and used in summary form by the state information system) or a modified pupil accounting system (in which there is a data record for each handicapped child), e.g., one without scheduling and academic testing information included in each child's data record. The decision as to the type of system that will be implemented should not be based only upon the availability of systems analysis and data processing services, but should be based upon the intended state and local use of the data and upon the amount of local effort required to supply the data. All of the following recommendations include the addition of a request for the type of educational program to the second page of the enrollment report forms.

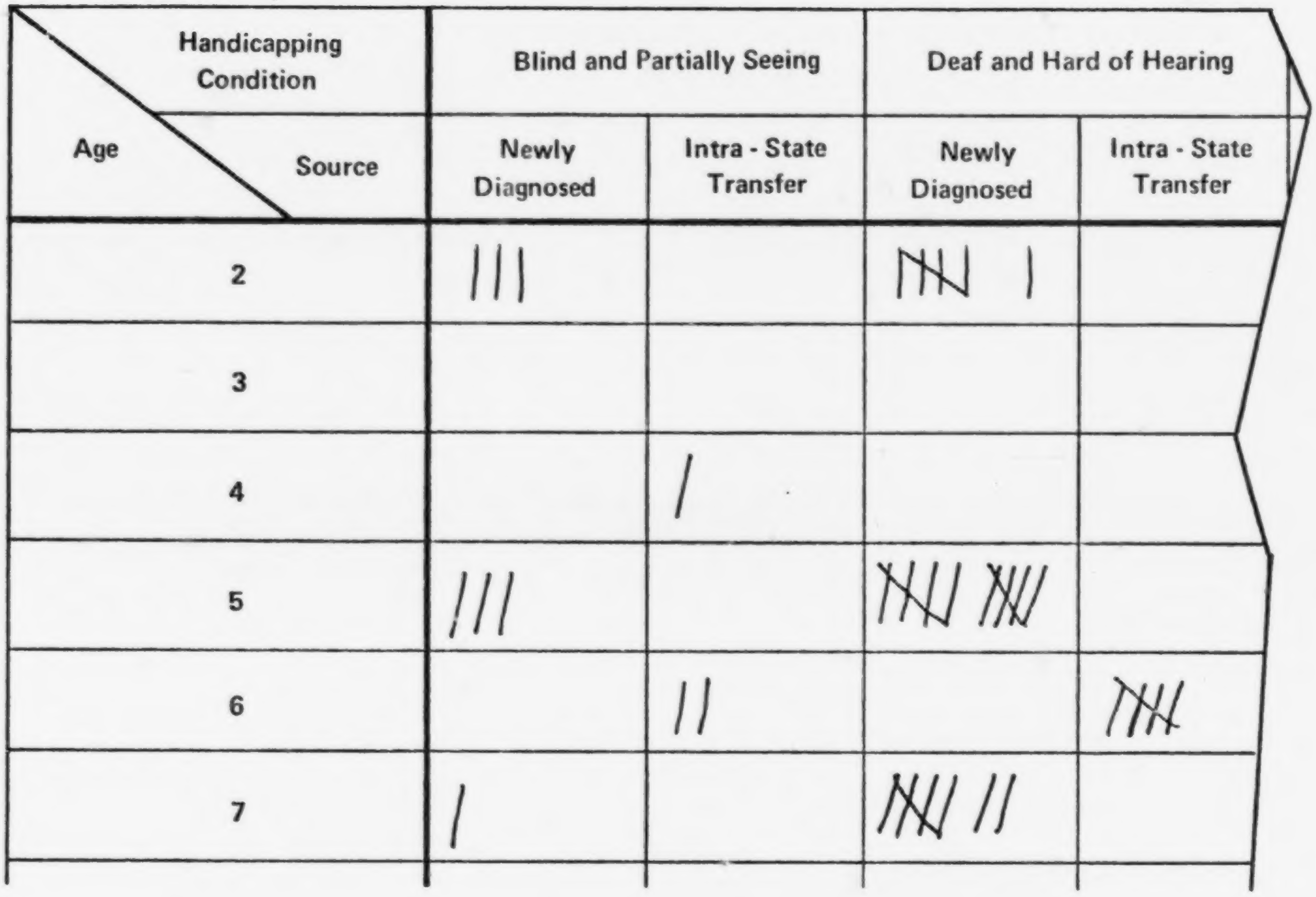
If a register of handicapped children is not to be maintained at the state level, the data summary system is recommended. To initiate this system, the current enrollment report forms can easily be modified to request a summary by age of the children listed on the report. This modification should be the addition of a two-row matrix such as shown in Figure 1 below.

Age											
Number of Children											

FIGURE 1. MATRIX USED TO REQUEST DATA SUMMARIZATION BY AGE

There are two methods of collecting the remaining data for this data summary system. If it is desired to have the names of children who are on the waiting list, who are new entrants to the handicapped population needing special education, and who attrite from that population , forms very similar in design to the enrollment reports could be developed. On these new forms, the data for each handicapping condition should be reported separately so that the information in the data summary matrix will be meaningful. The data summary matrix for the new entrants and attritions should contain at least two rows within the "number of children" category: for new entrants, the rows would request those children newly diagnosed and those who are classified as intra-state transfers; for attritions, the rows would request the children for each desired reason (e.g., return to normal school, moved out of school district).

The second method should be used if the names of the children are not going to be required to be reported to the state. In this case, all of the data should be requested in summarized form on matrices, one for each data element, similar in design to that presented in Figure 2. Blank copies of these matrices can be used by the local districts in a hash-mark fashion to record the data



Handicapping Condition	Blind and Partially Seeing		Deaf and Hard of Hearing	
Age / Source	Newly Diagnosed	Intra - State Transfer	Newly Diagnosed	Intra - State Transfer
2	|||		𝍸 |	
3				
4		|		
5	|||		𝍸 𝍸	
6		||		𝍸
7	|		𝍸 ||	

FIGURE 2. EXAMPLE OF MATRIX FORM TO COLLECT LOCAL DISTRICT DATA ABOUT NEW ENTRANTS TO HANDICAPPED CHILD POPULATION AND EXAMPLE OF HASH-MARK ENTRIES

during the year. The totals could then be transferred to a new set of matrices for transmittal to the Division of Special Education.

If a register of handicapped children is to be maintained at the state level, it is recommended that a modified pupil accounting system be implemented. Such an automated system, having the feature that the data need only be updated and not replaced yearly, would reduce the amount of data flowing from the local districts to the state and would ease the reporting tasks of the local districts. To initiate this system, forms similar in design to the current enrollment reports could be developed to request information from each local school district about each handicapped child eligible for special education. Such information should include but need not be limited to child name, birth date, address (street, city or post office, and zip code), county, school district number, father's first name, mother's first name, diagnosed primary handicap (coded), diagnosed secondary handicap (coded), date of diagnosis (if obtainable), education status (coded: type of education he is currently receiving, type of education he should be receiving), date of entrance into the local district, date of most recent entrance into special education, reason for (coded) and date of most recent attrition from special education, date of attrition from the local district, and miscellaneous diagnostic testing information.

Each of the two parts of the variable called education status could be coded as a two-digit code, with the first digit representing the handicapping condition for which the education is oriented and the second digit representing the type of educational program. Some examples of this are shown in Table 1. Using this coding scheme, a child who is currently receiving itinerant instruction for the emotionally disturbed and is on the waiting list for one of the state institutions would be coded as 47/42; a child who is currently in regular education awaiting entrance into a cooperative class program for the physically handicapped would be coded as 01/75.

The recommended systems design for such an automated pupil accounting system is presented in Figure 3. The following discussion may be easier to understand if this figure is kept in mind.

When the initial handicapped children file (alphabetically by child name within handicapping condition within local district) has been generated, two copies of an automated list of the children should be sent to each local district. The updating of the file can be done either periodically or at year end. Because it is always preferable to spread a workload over the greatest possible time period, it is recommended that changes to the automated list be sent to the state periodically (at least bi-monthly) by the local districts. Simple forms (similar to the form requesting the initial information) specifically for this purpose can be easily designed so that a minimum of information needed for updating would be required of the local districts. A continuing system such as this that would require only periodic updating has the advantage of significantly reducing the volume of reporting to the state which the local education agencies must do. For example, instead of having to report all identified children each year, a local agency needs to report only the changes to the population, which may affect only 20-25 percent of the children.

TABLE 1

POSSIBLE CODING SCHEME FOR THE VARIABLE EDUCATION STATUS

First Digit = handicapping condition for which the education is oriented

0 = none
1 = blind and partially seeing
2 = deaf and hard of hearing
3 = children with learning disabilities
4 = emotionally disturbed
5 = educable mentally handicapped
6 = trainable mentally retarded
7 = physically handicapped
8 = speech correction

Second Digit = type of educational program

0 = none
1 = regular class
2 = residential school
3 = special school
4 = day special class
5 = cooperative special class
6 = resource room
7 = itinerant instruction
8 = homebound instruction

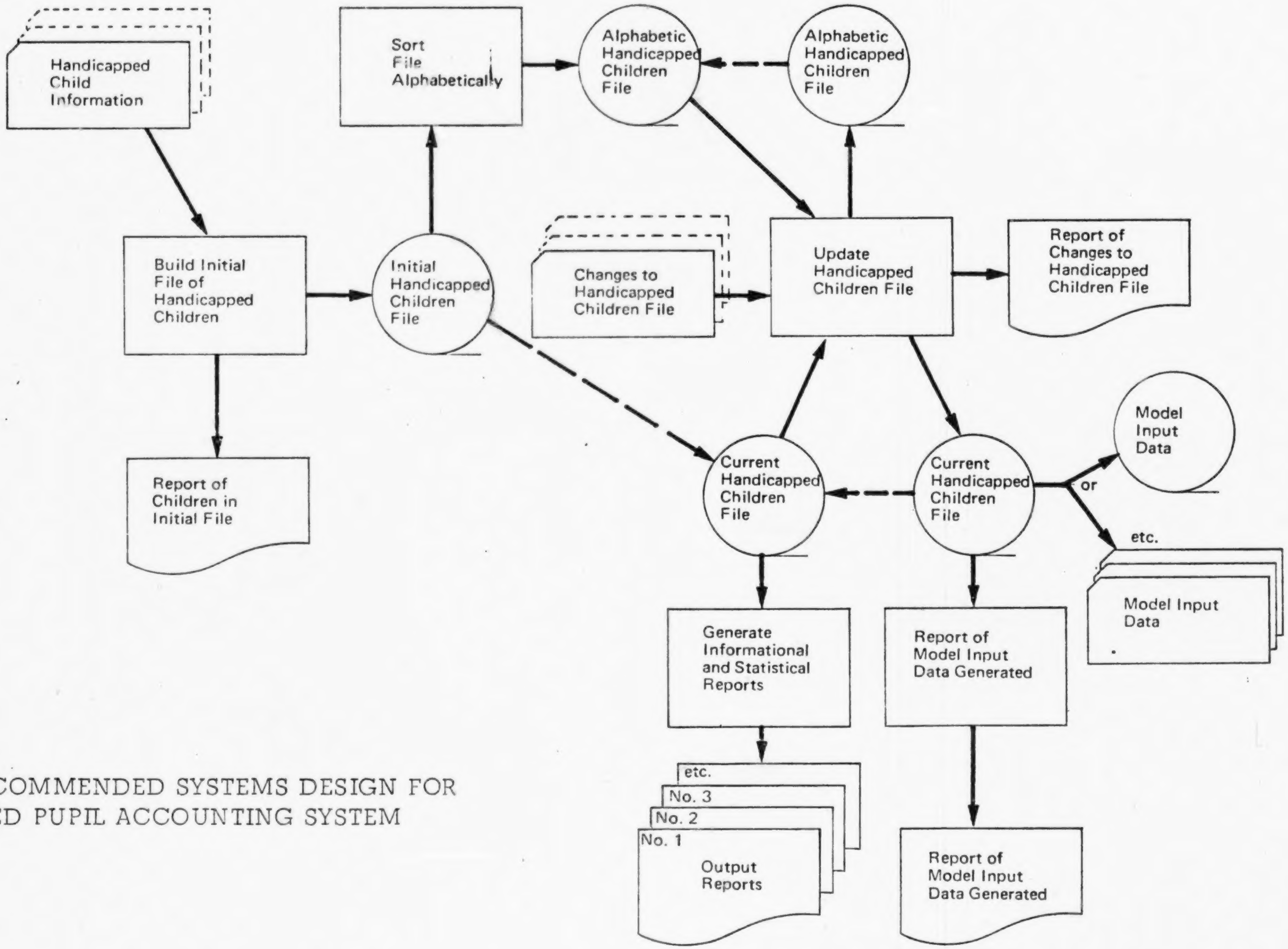

Handicapped Child Information
Build Initial File of Handicapped Children
Report of Children in Initial File
Initial Handicapped Children File
Sort File Alphabetically
Alphabetic Handicapped Children File
Alphabetic Handicapped Children File
Changes to Handicapped Children File
Update Handicapped Children File
Report of Changes to Handicapped Children File
Current Handicapped Children File
Current Handicapped Children File
or
Model Input Data
etc.
Model Input Data
Generate Informational and Statistical Reports
Report of Model Input Data Generated
etc.
No. 3
No. 2
No. 1
Output Reports
Report of Model Input Data Generated

FIGURE 3. RECOMMENDED SYSTEMS DESIGN FOR
A MODIFIED PUPIL ACCOUNTING SYSTEM

There are two possible data flows that can be used to maintain and update the system. The first flow has the local education agency as the focal point of data collection, placing on each LEA the responsibility for keeping all of its handicapped child data. Realistically, this is based upon soliciting the cooperation of the state schools and institutions under the Departments of Welfare and Mental Health to interact with the local districts. If the Departments (or the individual schools and institutions) will send to each local district a list of the district's children who are enrolled special education, are resident and awaiting entrance to special education, or are on a waiting list to be admitted into residency, and if the local district will then update the list as necessary (e.g. indicating that a child has moved or is enrolled in a newly created program at the local level) and, after recording all the information that they need, will send that corrected list back to the Departments, then such interaction can be of benefit to both parties. Such a flow would contain no duplications.

The second flow requires data duplications to be detected and removed at the state level. The local districts and the state schools and institutions would report each child directly to the Division of Special Education and an automated system would verify, purge, and record the required data. Although this second flow is easier for the individual respondents, if a large amount of duplication exists, a machine cannot be trusted to select which record submitted for a child is valid; in this case, manual steps must be taken to determine which record should be entered into the system.

From the current handicapped children file, many reports of interest (informational and statistical) and all of the child related data needed by the Special Education Manpower Requirements Model can easily be generated. The records of those children who are reported as attritions should contain the date of such attrition and should be flagged and retained on the file for at least one year to ensure that intra-state transfers are recognized as such. For example, intra-state transfers will be recognizable using the variables for date of most recent entrance into special education and/or the local district, and reason for and date of most recent attrition from special education and/or the local district; a child who has moved from one local district to another will be reported as an attrition from the first and an entrant into the second but, when data is tabulated, will not be included in state-wide totals for new entrants and attritees.

The alphabetically sorted handicapped children file is used to eliminate the possibility of a child being reported by more than one local district, as would be the case if a child moved and was reported as a new entrant by his new district before the old district reported him as an attrition. In this case, the child's record can be flagged to indicate that this has happened. The alphabetic file could also be used to generate the data needed by the model if interim totals by district are not needed by the Division of Special Education for any purpose.

VIII. RESOURCE REQUIREMENTS—MANPOWER

If the data summary type of system is to be implemented in Oklahoma, it is estimated that three man-weeks will be required to design and/or redesign data collection instruments and to obtain approval of the new forms. In addition, approximately four man-weeks of a systems analyst/programmer's time will be required to accomplish the required systems design, coordination, and computer programming/debugging for the data summary system.

For the automated modified pupil accounting system, it is estimated that one man-month will be required to accomplish the first of the above-mentioned set of tasks and that $3\frac{1}{2}$ man-months will be required to accomplish the latter set.

The task of coordinating with the local districts (i.e., trainng local people to fill out the new forms, engendering local support for the information system, and ensuring completeness and validity of the reported data) could probably be assigned part-time to all the consultants in the Division of Special Education but, since they already have a relatively large workload, it is recommended that a part-time coordinator be employed to assist the consultants in this task during the first year of any systems implementation. This task is estimated to require about 3 man-months of effort for the data summary system and approximately 4 man-months of effort for the pupil accounting system. After the big push to get the system initiated, these consultants will be the only state level personnel who are familiar enough with the situations in the local districts to make accurate judgments about the completeness and validity of the initial data. Thereafter, the task of ensuring that the data is reliable will require very little effort (1-$1\frac{1}{4}$ man-months annually) on the part of the consultants.

The Director of the Division of Special Education, by virtue of his position and influence, is the only person who can arrange for the cooperation of the Departments of Health, Mental Health, and Welfare and private physians and/or psychologists. Arrangements with the latter two groups of people could possibly be made through the Department of Health and the county health officers. The amount of time that this will take is dependent upon the attitudes and the organizational structure of all the agencies and organizations involved.

IX. PERSONS INTERVIEWED

Dr. Maurice Walraven	Administrator, Division of Special Education State Department of Education
Mrs. Erlene Dowling	Coordinator, Speech Program Division of Special Education
Mr. Richard Gerbrandt	Coordinator, Title VI Projects Division of Special Education
Dr. C.D. Jones	Coordinator, General Division of Special Education
Mr. Merlin Taylor	Coordinator, General Division of Special Education
Mr. William Siler	Administrator, State Department of Education Research and Data Control

X. CURRENT REPORT FORMATS

- Montage of Applications for Conditional Preapproval of Plan for Special Education for
  - — Children who are Blind or have Defective Hearing
  - — Children who are Deaf or have Defective Hearing
  - — Educable Mentally Handicapped Children
  - — Trainable Mentally Retarded Children
  - — Emotionally Disturbed Children
  - — Children with Learning Disabilities
  - — Physically Handicapped Children
- Portions of Applications for Conditional Preapproval of Plan for
  - — Speech Correction
  - — Helping Physically Handicapped Children to Attend a Regular Class
  - — A Visiting Counselor Program
  - — Special Education for Homebound Children
  - — Professional Personnel of Special Education for Exceptional Children
  - — A Director or Supervisor of Special Education for Exceptional Children

FOR OFFICE USE ONLY
Date Visited ____________
By ____________
Unit ____________

STATE OF OKLAHOMA
DIVISION OF SPECIAL EDUCATION
State Department of Education
D. D. Creech, Superintendent

APPLICATION FOR CONDITIONAL PREAPPROVAL OF PLAN FOR SPECIAL EDUCATION FOR CHILDREN WHO ARE BLIND OR HAVE DEFECTIVE VISION *

(Within thirty days after class organization, return one copy)

County ______________________ School Year 19____ 19____

Name of School ______________ District No. ________ Supt.'s Offi- ress ______________

City ______________________ ____________ Zip Code

(REPRODUCED FROM STATE FORM)

____________ ress of Building Where Class is Held

* Similar front pages are used for:
- Deaf or Defective Hearing
- EMR
- TMR
- Emotionally Disturbed
- Learning Disabilities
- Physically Handicapped

Division of Special Education
State Department of Education
State Capitol Building
Oklahoma City, Oklahoma 73105

Pursuant to the requirements of the Law providing for the education of children who are blind or have defective vision, we submit herewith our application for conditional preapproval of the plan for special education as included herein.

Date of beginning special service ______________________, 19______

Teacher's Salary— Is 5% above that of a teacher in a regular classroom with the same qualifications in your school? (Required by law) ______________

We recognize that certification of this class for reimbursement by the state depends upon (1) our carrying out of the plan of Special Education herein included, and (2) final approval based on visitation reports by a representative of the Division of Special Education.

____
Principal

____
Secretary or Clerk of Board

____
Superintendent

D36-17

TOP OF ALL PAGES

To Be Completed by Teacher:

Teacher ______________________ Name ______________________ Address

______________________ City ______________________ Zip Code

Page 2 of **REPORT ON CHILDREN WITH VISUAL DEFECTS**

	Pupil's Name	Sex	Age	Grade	Dist. No.	Visual Acuity in Better Eye With Corrective Lenses
1.						
2.						

Class Enrollment: MINIMUM 5 MAXIMUM 16

Page 2 of REPORT ON DEAF AND HARD-OF-HEARING CHILDREN

	Pupil's Name	Sex	Age	Grade	Dist. No.	Decibel Loss
1.						
2.						

Class Enrollment: MINIMUM 5 MAXIMUM 16

Page 2 of Report on Educable Mentally Handicapped Children

	Pupil's Name	Sex	Age Now Yr.-Mo.	Grade	I. Q. *	Date Of Test	Name of Test Used	Name of Examiner
1.								
2.								
3.								

*If IQ is above 78, a copy of the Psychological Summary with reasons for the pupil's placement in the special class must be attached to this form.

Class Enrollment: MINIMUM 8 MAXIMUM 20

(REPRODUCED FROM STATE FORM)

D36-18

Page 2 of Report on Trainable Mentally Retarded Children

	Pupil's Name	Sex	Age Now Yr.-Mo.	Grade	IQ*	Date of Test	Name of Test Used	Name of Examiner
1.								
2.								

Class Enrollment: MINIMUM 5 MAXIMUM 10

Page 2 of Report on Emotionally Distrubed Children

	Pupil's Name	Sex	Age Now Yr.-Mo.	Grade	IQ*	Date of Test	Name of Test Used	Name of Examiner
1.								
2								

Class Enrollment: MINIMUM 5 MAXIMUM 10

*If IQ is below 90, a psychological summary giving reasons for recommending placement in this type of class [illegible] this report. Recommendation must be signed by a qualified psychological examiner.

Page 2 of Report on Physically Handicapped Children

	Pupil's Name	Sex	Age	Grade	Dist. No.	Diagnosis of Handicap
1.						
2.						

Class Enrollment: MINIMUM 5 MAXIMUM 10

(REPRODUCED FROM STATE FORM)

D36-19

Page 2 of Report on Children With Learning Disabilities

	Pupil's Name	Sex	Age Now Yr.-Mo.	Grade	IQ*	Date of Test	Name of IQ Test Used	Name of Examiner	Test Used Which Indicates Neurological Dysfunction
1.									
2.									

Class Enrollment: MINIMUM 5 MAXIMUM 10

---

*If IQ is below 90, a psychological summary giving reasons for recommending placement in this type of class must accompany this report. Recommendations must be signed by a qualified psychological examiner.

(REPRODUCED FROM STATE FORM)

BOTTOM OF ALL PAGES

Teacher should maintain a list of any children enrolled after this report is filed. The complete list of children served will be requested at the end of the school year. The list should contain the same information as requested above.

Page 2 of Application for Conditional Preapproval of Plan for Speech Correction

Teacher ____
Name Address

____
City Zip Code

(REPRODUCED FROM STATE FORM)

RETURN WITH PREAPPROVAL APPLICATION

A LIST OF SPEECH CORRECTION CASES

List pupils by school and grades

Class Enrollment: MINIMUM 75 MAXIMUM 100

Teacher should maintain a list of any children enrolled after this report is filed. The complete list of children served will be requested at the end of the school year. The list should contain the same information as requested above.

Teacher's Salary – Is 5% above that of a teacher in a regular classroom with the same qualifications in your school? (Requested by law) ___________

We recognize that certification of this class or reimbursement by the state depends upon (1) our carrying out of the plan of Special Education herein included, and (2) final approval based on visitation reports by a representative of the Division of Special Education.

____
Principal

____
Secretary or Clerk of Board

____
Superintendent

D36-21

PHYSICALLY HANDICAPPED CHILDREN ATTENDING A REGULAR CLASSROOM — Page 2

Semester ______________ Date ______________

County ______________ School ______________ Address ______________ Dist. No. ______________

Pupil's Name	Sex	Age	Grade	When Transportation is Used			Name of person Providing Transportation
				No. of Miles from Child's Home to School	Type of Transportation Used	Cost per Day	

(REPRODUCED FROM STATE FORM)

D36-22

Page 2 of Application for Conditional Preapproval of Plan for a Visiting Counselor Program

Teacher ______________________________
Name Address

____
City Zip Code

To Be Completed By Administrator

Part of day devoted to serving children with social and/or emotional problems:

Half ____________ Whole ____________ Other ____________

(If county or cooperative program, please list the school districts involved and the part of the program for which they will be responsible.)

DISTRICT	NUMBER	PART OF PROGRAM

(REPRODUCED FROM STATE FORM)

The visiting counselor keeps a daily log of services performed.
(Bi-Annual Reports of case load will be requested by the state office.)

Teacher's Salary — Is 5% above that of a teacher in a regular classroom with the same qualifications in your school? (Requested by law) ____________

We recognize that certification of this class for reimbursement by the state depends upon (1) our carrying out of the plan of Special Education herein included, and (2) final approval based on visitation reports by a representative of the Division of Special Education.

____
Principal

____
Secretary or Clerk of Board

____
Superintendent

D36-23

A LIST OF HOMEBOUND CHILDREN TO BE TAUGHT — Page 2

Date ______________ Semester ______________

County ______________ Name of School ______________ Address ______________ District No. ______________

	Name of child	Sex	Age	Grade	How long has child been absent from school	Miles from child's home to school	If mileage is paid, rate per mile	Hour taught 4:30 to 5:30 p. m. etc.	Date requested for beginning service	Name of teacher
1.										
2.										
3.										
4.										
5.										
6.										
7.										
8.										
9.										
10.										

(REPRODUCED FROM STATE FORM)

Fill out when School-to-Home Telephone System is used: Minimum time period three (3) months.

(a) Age of child ______________

(b) Grade ______________

(c) No. of jacks used ______________

(d) Air miles from school ______________

(e) Cost of installation $ ______________

(f) Rental cost per month $ ______________

(g) Probable length of time child will be taught by this system. ______________

Page 2

Application for Conditional Preapproval of Plan for Professional Personnel of Special Education for Exceptional Children

TO BE COMPLETED BY PROFESSIONAL PERSONNEL:

Name ____________________ Address ____________________

City ____________________ Zip Code ____________________

1. Highest degree held. A.B. or B.S.____ Master's_____ Doctor's_____
2. Total number of years experience as certified to State Finance Division on personnel report. ______
3. Number of years in Special Education. ______
4. Special Education Certificate held. Temp.___ Prov.___ Std.___ Prof.___
5. Date of expiration. ______
6. Area of specialization. ______
7. Where and when was special training taken? ______

(REPRODUCED FROM STATE FORM)

TO BE COMPLETED BY ADMINISTRATOR:

1. Number of months in contract. ______
2. Annual salary. ______
3. Is this salary 5% above that of a Professional person with the same qualifications in your system? ______
4. Method of Financing Salary*

Amount of District Funds	$__________
Amount of Title I Funds	$__________
Amount of Title VI Funds	$__________
Amount of Other Funds	$__________

*No State Aid will be calculated on Professional Personnel fully reimbursed from Federal Funds.

THE ABOVE INFORMATION SHOULD CORRESPOND WITH THE INFORMATION ON THE PERSONNEL REPORT SENT TO THE FINANCE DIVISION.

We recognize that certification of this program for reimbursement by the State depends upon (1) our carrying out of the plan of Special Education herein included, and (2) final approval based on visitation reports by a representative of the Division of Special Education.

____________________ Secretary or Clerk of Board

____________________ Superintendent

Page 2

Application for Conditional Preapproval of a Plan for a Director of Supervisor of Special Education for Exceptional Children

TO BE COMPLETED BY DIRECTOR OR SUPERVISOR:

Director or Supervisor____
Name Address

____
City Zip Code

1. Highest degree held. A.B. or B.S.____ Master's____ Doctor's____

2. Total number of years experience as certified to State Finance Division on personnel report.

3. Number of years in Special Education.

4. Special Education Certificate held. Temp.___ Prov.___ Std.___ Prof.___

5. Date of expiration.

6. Area of specialization

7. Where and when was special training taken?

(REPRODUCED FROM STATE FORM)

TO BE COMPLETED BY ADMINISTRATOR:

1. Number of months in contract.

2. Annual salary.

3. Is this salary 5% above that of a Director or Supervisor with the same qualifications in your system?

4. Method of Financing Director's or Supervisor's Salary*

Amount of District Funds $____________
Amount of Title I Funds $____________
Amount of Title VI Funds $____________
Amount of Other Funds $____________

*No State Aid will be calculated on Directors or Supervisors fully reimbursed from Federal Funds.

THE ABOVE INFORMATION SHOULD CORRESPOND WITH THE INFORMATION ON THE PERSONNEL REPORT SENT TO THE FINANCE DIVISION.

We recognize that certification of this program for reimbursement by the State depends upon (1) our carrying out of the plan of Special Education herein included, and (2) final approval based on visitation reports by a representative of the Division of Special Education.

______________________________ ______________________________
Secretary or Clerk of Board Superintendent

D[illegible]26

TABLE 2

SUMMARY OF DATA DEVELOPMENT STATUS

OKLAHOMA

DATA ELEMENTS			Local Public School Districts			State Institutions Under Departments of Mental Health and Welfare			State Schools Under Department of Welfare			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Exists but not tabulated by age	Modify report form to request educational program and summary by age, then tabulate	Classroom teacher	Programs operated by local school districts	See column for local school districts	See column for local school districts	Not available	Request names and summary of residents by age	Principal or Superintendent of each school	Not available but totals can be provided on a voluntary basis
		HANDICAPPING CONDITION							Available to Division of Special Education			
		EDUCATION PROGRAM	Not available									
	ON WAITING LIST	AGE	Not available but mandated	Develop report format similar to enrollment forms, or develop simple matrix form, then tabulate	Authorized officer of school district who is responsible for Special Education	Not available but mandated	See column for local districts	Authorized officer of each institution who has responsibility for overseeing Special Education contract	Not available but mandated	Develop report format similar to enrollment forms, or develop simple matrix form, then tabulate	Principal or Superintendent of each school	
		HANDICAPPING CONDITION										
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not available but mandated	Develop report format similar to enrollment forms, or develop simple matrix form, then tabulate	Authorized officer of school district who is responsible for Special Education	Not available but mandated	See column for local school districts	Authorized officer of each institution who has responsibility for overseeing Special Education contract	Not available but mandated	Develop report format similar to enrollment forms, or develop simple matrix form, then tabulate	Principal or Superintendent of each school	
		HANDICAPPING CONDITION										
	INTRA-STATE TRANSFERS	AGE	Not available			Exists but not available			Exists but not available			
		HANDICAPPING CONDITION										
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Available for enrollees, but those from waiting list not reported to Division of Special Education			Exists for enrollees but not reported to Division of Special Education			Exists for enrollees but not reported to Division of Special Education			
		HANDICAPPING CONDITION										
		REASON										
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Available but probably not by age	Add breakdown by single year of age, 0-21	1, Bureau of Research at Oklahoma University 2, Division of Research and Planning							
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Available as defined by legislation, policy, and planning	Not applicable	Administrator of Division of Special Education and/or his staff of consultants	Programs operated by local school districts	See column for local school districts	See column for local school districts	Not available to Division of Special Education	Request information on a voluntary basis	1. Administrator of each school 2. Coordinator within Department of Welfare	Not available but totals can be provided on a voluntary basis
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP										
		EDUCATION PROGRAM										
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Available except for paraprofessionals	Modify report form to request numbers and types of paraprofessionals then tabulate	Classroom teacher				Available to Division of Special Education	Not applicable	Administrator of each school	

OREGON STATE ANALYSIS REPORT

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II. SUMMARY D37-2

III. RESPONSIBILITIES FOR SPECIAL EDUCATION D37-2

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IX. PERSONS INTERVIEWED D37-16

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

OREGON STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state education agencies and BEH and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of this Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow procedures to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Oregon and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 2 at the end of this report.

II. SUMMARY

Oregon is in a good position to initiate the information flow necessary to provide the data required for the Manpower Requirements Projection Model utilization. A flow of data now exists from the local education agencies to the state Special Education Division but the data elements are not being fully utilized due to lack of automation and the incompleteness of the set of data elements collected. Using the good rapport between local and state agencies upon which to build, Oregon should have little problem developing a more complete and automated information system relating to the handicapped child population. Considering the enthusiasm of the Director of the Special Education Division, such a system has a high probability of being developed and implemented in a relatively short period of time.* The proposed information system should result in successive improvements in the completeness and the accuracy of the data elements over time, with such validity being achieved within a few years at the most. Later documents pertaining to this project contain more information about methods which may be used to estimate some of the data elements until a good information flow is developed and validated.

The data processing hardware available for lease by the Special Education Division has the capability of handling both the model input data processing program and the programmed model itself.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

Only local public education is operated by the Oregon Board of Education, a group of seven people appointed by and responsible only to the State legislature (and thus the Oregon citizens). The Superintendent of Public Instruction, elected by the citizens, is the chief administrator and appoints a Deputy Superintendent and three Associate Superintendents. Under one of the latter groups, entitled Elementary and Secondary Education, is found the Division of Special Education. The Division Director, Mr. Mason D. McQuiston, and his six handicap area consultants certify children for eligibility for the local special education programs and approve and oversee the conduct of these programs.

All other public special education in Oregon is operated at the state level by the Human Resources Planning Committee (HRPC) which reports to the Governor through his Executive Assistant. Within HRPC, the Mental Health Division operates Fairview Hospital and Training School for the mentally retarded and the institutions for the emotionally disturbed, while the Special Schools Division operates the two state schools, one each for the blind and the deaf. The organization chart depicting the foregoing description is presented in Figure 1.

---

* Work on the automation of the current pupil accounting system has already begun.

Since the two groups responsible for public special education programs report to different and independent branches of the government, there are no formal responsibility links, and any interdepartmental liaison is informal and voluntary. A good working relationship now exists among the three Divisions and has been strengthened by the move of a Consultant for Mentally Retarded Children from the Division of Special Education to the Mental Health Division.

Non-public special education programs are free of any control by the state and local governments.

IV. DATA ELEMENT EVALUATION

Out of 364 school districts in Oregon, 105 (containing over 70 percent of the child population) provide at least some special education services either directly through the school district or through one of the 29 cooperative Intermediate Education Districts (IEDs). All data for locally sponsored special education that are currently collected originate from the person responsible, be he a Director of Special Education, an Assistant Superintendent, or a building principal, at the school district or IED office. In the following paragraphs, the data elements needed by the Manpower Requirements Projection Model are discussed in terms of their availability and development potential.

The number of children enrolled in special education, the first component of the most important data element (the number of children identified as needing special education), is currently reported by local education agencies at the end of the academic year. Since the enrollment list reflects additions and attritions during the year, some effort would be needed to separate out the year's original enrollment. Pupils in the program for the mentally retarded are reported by age on form MR4 (Claim for Reimbursement . . . for Cost of Educating Mentally Retarded Pupils [see pages D37-25, 26]); thus, all enrollment information needed about mentally retarded children for using the model is flowing to the state. However, neither this information nor any other information flowing to the Special Education Division is being machine processed. All other handicapped pupils enrolled are reported by handicap, by type of educational program (home instruction, special class or school, transfer to other districts, and part-time instruction), and by grade on form HC13 (Claim for Reimbursement for Instruction of Handicapped Children [see pages D37-23,24]). With a slight modification of HC13, e.g., the addition of a column labeled either birthdate or age, and one labeled type of educational program (in the case of part-time special education), all of the enrollment data needed for model input could be collected.

Consider, however, the possibility that the Special Education Division will want to perform some other desired types of processing and analysis which require the same detailed enrollment data. In that case, having to wait until year's end to obtain the data would place great restrictions on the choice of

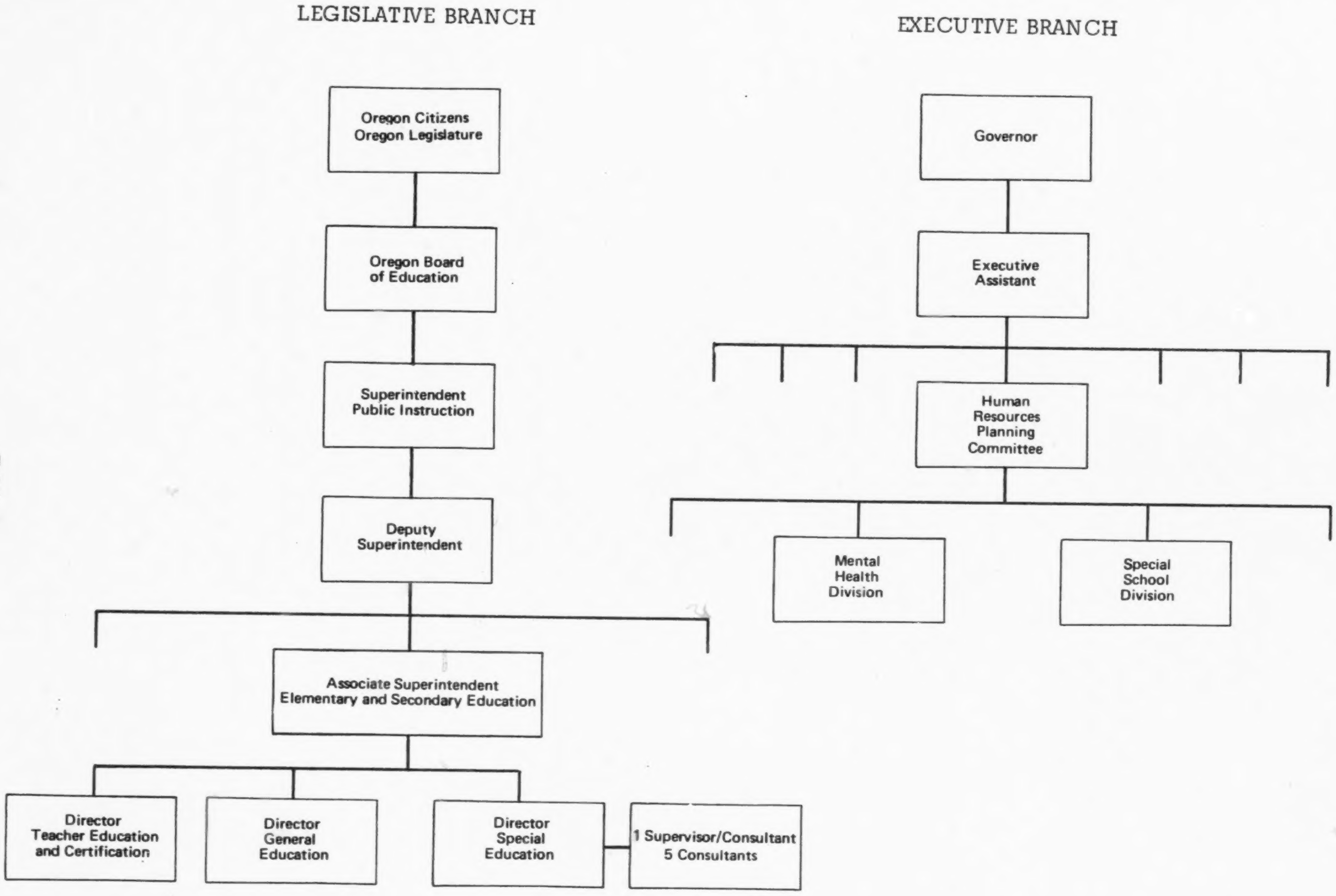

LEGISLATIVE BRANCH
EXECUTIVE BRANCH
Oregon Citizens Oregon Legislature
Oregon Board of Education
Superintendent Public Instruction
Deputy Superintendent
Associate Superintendent Elementary and Secondary Education
Director Teacher Education and Certification
Director General Education
Director Special Education
1 Supervisor/Consultant 5 Consultants
Governor
Executive Assistant
Human Resources Planning Committee
Mental Health Division
Special School Division

FIGURE 1. OREGON ORGANIZATION CHART, RELATING TO SPECIAL EDUCATION SERVICES

analyses that would not lose validity because of using outdated data. Therefore, since the local school districts and IEDs are already providing the data, it is recommended that current enrollments be reported in detail at the beginning of the school year. This change in reporting schedule could be accomplished easily by modifying the current forms HC12 (Estimate of Claim for Reimbursement for Education of Handicapped Children [see pages D37-19 through 22]) and MR4 to request the beginning of year enrollment by age (and by specific educational program in the case of part-time special education) in addition to the handicapping condition and educational program now requested. If such data are reported by pupil name and an automated list is made and sent back to the local agencies, fall enrollment data could be eliminated from form HC13; thus the data reporting task of the local agencies would be reduced.

Currently, since children are often not certified as handicapped until a place in special education exists for them, the number of children on special education waiting lists, the second component of the identified handicapped child population, is incomplete at, and not collected from, local education agencies. However, if the local agencies can be convinced of the value of their and the state's keeping track of this data for planning purposes, a request for the number or names of children on that waiting list, by age and handicapping condition at the beginning of the year, could easily be incorporated into form HC12 in a format similar to that designed to collect enrollment data. If both the enrollment and the waiting list data are reported by child name and a combined automated list is made and sent back to the local school districts and IEDs, the data gathering task will become easier and the data will be more accurate because of increased local involvement in the use of the reported data.

The remaining public data about the identified handicapped child population is not now received by the Special Education Division, but both the Mental Health and the Special Schools Divisions of HRPC indicated a willingness to provide this information on an "as requested" basis. The Biometrics Section of the Mental Health Division maintains a punched card file on all residents which can be listed automatically.

Since no systematic diagnostic referral system now exists at the state or local level, data on the unidentified handicapped child population will probably have to be estimated using Oregon's published prevalence rates rather than an estimate of the diagnostic waiting list and the potential undiagnosed population. The estimated prevalence rates are:

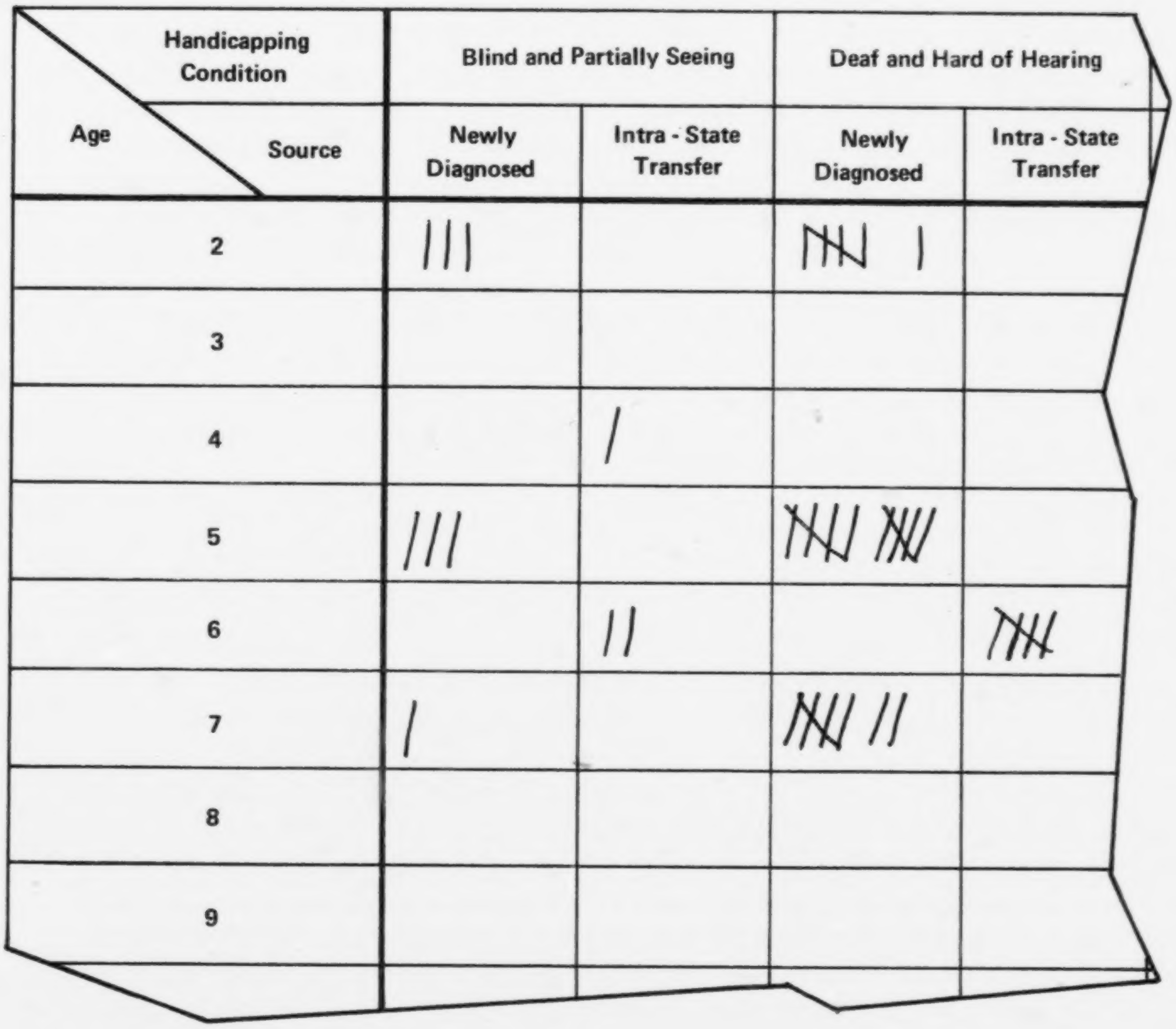
- Mentally retarded — 1.93%
- Physically handicapped — 0.5%
- Speech impaired — 4.0%
- Hearing impaired —0.5%
- Visually impaired — 0.15%
- Socially and emotionally handicapped — 2.0%
- Extreme learning problems — 5.0%.

Using prevalence rates is an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternative methods of validating these rates.

Information about the numbers of children moving into and out of the identified handicapped child population is partially collected; data on new entrants to that population are not now collected and data on attritions from that population are collected only for the children enrolled in special education. Currently, due to the lack of a structured diagnostic reporting system (i.e., all or most of the diagnoses reported to a central source, e.g., the school district), the number of children newly diagnosed as needing special education cannot be completely and accurately collected. The local district in Oregon is recommended as the central source because it is there that a child is processed to deem him eligible for special education. Cooperative directives could be issued between the Department of Education and each of the other agencies involved in diagnosing the children (Mental Health Division of HRPC, including Fairview Home, Crippled Children Division of the Department of Higher Education, and the State Board of Health) to affect the reporting of these newly diagnosed children to the applicable local district by child name, age, address, parent name, and handicapping condition. The chief school officer or his representative responsible for special education (e.g., a director of special education) in each local district could then be queried for individual children's names and records or for totals by age and handicapping condition of those children who are newly certified as needing special education.

If the latter query method is chosen, a simple matrix form, one by handicap and age, could be used by the local districts in a hash-mark fashion to record the children as they are reported to the district, either as newly diagnosed or as intra-state transfers. See Figure 2 for an example of such a form. This form could then be forwarded to the state Special Education Division at the end of the year. Such data need not be reported to the state by child name unless the enrollment and waiting list data are also reported by child name. If data are being reported by name and an automated list of the identified handicapped children is being sent to the local districts, it would be preferable to have that list updated, with new entrants and attritions (also discussed below) noted, and a copy forwarded to the state at the end of the year.

Attritions from the enrolled population are currently collected on form MR4 for the mentally retarded, by age and reason for attrition (corrected, moved, or other) and on form HC13, supplementary sheets IV, V, and VI, for other handicapping conditions, by grade and the same three reasons for attrition. There are three alternative methods for collecting attrition data for the total identified handicapped child population. Both of the first two include adding a column for



Handicapping Condition / Age \ Source	Blind and Partially Seeing		Deaf and Hard of Hearing	
	Newly Diagnosed	Intra - State Transfer	Newly Diagnosed	Intra - State Transfer
2	|||		𝍸 |	
3				
4		|		
5	|||		𝍸 𝍸	
6		||		𝍸
7	|		𝍸 ||	
8				
9				

FIGURE 2. EXAMPLE OF MATRIX FORM TO COLLECT LOCAL DISTRICT DATA ABOUT NEW ENTRANTS TO HANDICAPPED CHILD POPULATION AND EXAMPLE OF HASH-MARK ENTRIES

age or date of birth to the form HC13 supplementary sheets and are based upon the assumption that special education waiting list data are kept separately from enrollment data. The attritions from the waiting list (not included here are children who transfer from the waiting list to the enrollment list) can be reported to the state on a simple matrix form similar to that discussed in connection with the reporting of new entrants, with the additional breakdown of reason for attrition added to the dimension containing the handicapping condition.

Here again, however, if enrollment and waiting list data are reported by child name, the attrition data should also be reported to the state this way. Such a form for reporting attritions from the waiting list would be similar to that used to report attritions from the enrolled population, requesting child name, age, handicapping condition, and reason for attrition. The third alternative method should be used if the enrollment and waiting list reports are by child name and an automated list of the identified handicapped children is being sent to the local districts; here it would be preferable to have that list updated, with attritions noted and coded by reason, and a copy forwarded to the state at the end of the year. This last statement has been emphasized because it is felt that this is the best system of collecting handicapped child information short of a complete pupil accounting system (PAS) which would be updated periodically. A modification of such a PAS will be described in greater detail in Section VII, Recommendations.

Attritions from the schools and institutions under HRPC are not currently tabulated or reported to the local districts in which the children reside. If they are reported to and validated by the local districts, the districts can include these children in their reports to the state.

The foregoing methods for collecting data on waiting lists, and new entrants to and attritions from the handicapped child population, must put the burden of keeping track of the total population on the local district. While this may not seem fair, doing it any other way greatly increases the possibility of double counting in the handicapping conditions for which the state provides special education. For instance, a child on the waiting list for Fairview Hospital and Training School may be receiving special education in his local district, and a child who attrites from Fairview Hospital and Training School might return to his local district's special education program. It is more likely that a local district would have such information (this is discussed further in Section VII). Here again, an automated PAS would make keeping track of such children much easier.

Projections, by grade, of Oregon's school age population, used by the Manpower Requirements Projection Model to project the number of new entrants into the handicapped child population, are made annually by the School Finance and Statistics Services Section, Educational Fiscal Management Services Division under the Associate Superintendent in charge of Management Services and Program Support. The Computer Services Division is also under this Associate Superintendent.

The Director of the Special Education Division and/or his staff of consultants can provide the data needed to simulate special education. Thus, no further development effort is needed for these data elements:

- Trends in the number or proportion of enrolled children being served in each educational program, by target group (an educationally meaningful combination of handicapping condition and education level); termed educational program mix
- The types of personnel (occupations) serving each target group in each educational program and their associated personnel/pupil contact ratios.

If Oregon wishes to collect data on the numbers of special education personnel employed, by type, in order to calculate the current manpower gap, it would be relatively simple to have each local district list the personnel, by type, on form HC12 or its equivalent, as is done now on HC12 for personnel providing itinerant services.

V. PROCESSING POTENTIAL

With the reorganization of the Department of Education came the creation of the Computer Services Division, headed by Mr. Carl Christoffersen. This division is responsible for performing the systems analysis and computer programming required to implement all approved data processing requests within the department. Such requests are made directly to and are evaluated by the director of the Computer Services Division. At present, Mr. Christoffersen has on his staff one systems analyst (plus one unfilled position), two computer programmers, and three keypunchers, and has no large backlog of work. If availability does not become a constraint, such a staff is adequate to develop and implement a Special Education information system in Oregon.

Computer time on an IBM System 360 Model 40 is being leased by Computer Services Division, as required, from the Department of Highways at rates of $70.00 per hour for block time and $80.00 per hour for time in the regular job stream. This computer is adequate to handle the Special Education information system and the programmed Manpower Requirements Projection Model. Funds for the implementation of a new data processing system this year would have to come from the Special Education Division, but, if the system is to be maintained, the continuing expense would be built into the succeeding years' budgets of the Computer Services Division.

The need for special education data processing capabilities at the state level will be significantly reduced if project OTIS (Oregon Total Information System), currently being developed with Title III funds, becomes operational on a statewide basis and contains the data required by the Special Education Division. With its computer (a 360/50) currently located in the Lane County

IED (Eugene) and some of the 75 processing terminals located in schools in other local districts throughout the state, OTIS is oriented toward service for the local schools and school districts. A side benefit of such a service would be the reporting of already tabulated data and/or complete handicapped child lists from the local districts to the state.

Mr. McQuiston is in favor of using the mathematical model to project special education manpower requirements, and he and his staff are capable of preparing the input for and analyzing and evaluating the output from such a model. He has already instigated a series of discussions with Mr. Christoffersen about collecting and processing data, which includes that required by the model, and is willing to undertake any work needed to assist and direct the implementation of a comprehensive information system.

VI. ADDITIONAL FACTORS

In some of the Oregon counties (and thus the local districts), it is difficult to organize special education programs because they are sparsely populated. This lack of local special education service has some implications on the development of a statewide information system and the data required by the model. One is that, due to lack of local service, parents and teachers are not encouraged to diagnose handicapped children unless they might be eligible for admission to a state school or institution; thus, even in the future, special education waiting list data would underestimate the unserved handicapped child population, which would therefore include an unknown number of unidentified children, and data on the rate at which children are diagnosed as needing special education in those districts will not reflect the actual new incidence of handicapping conditions. However, since the handicapped child population in these counties is small, the lack of complete data is not likely to adversely affect the validity of statewide data tabulations.

The only other significant problem which may occur concerns the issuance of interagency cooperative directives at the state level setting up the diagnostic reporting procedures which are a prerequisite to the collection of accurate and complete data on the newly diagnosed handicapped child population. The effect of such directives on increasing communication between state sponsored clinics, etc., and local school districts and IEDs is still a question mark, as is the method to be used to increase communication between private physicians and the local districts.

VII. RECOMMENDATIONS

In order to provide for data needs of the Manpower Requirements Projection Model and other Special Education Division requirements, it is recommended that handicapped child data in Oregon be kept in a modified pupil accounting system (PAS), e.g., one without scheduling and testing information included in each child's data record, for all handicapping conditions except extreme learning problems and speech impairments. The consultants in these latter areas indicated that it would be of no particular value to retain the individual records of such children at the state level and that totals by local district are sufficient. If a decision is made to include any of these children in the future, it would not be difficult to add them to the modified PAS.

To initiate the system, Form HC12 can easily be modified to request information about each handicapped child in the local district, possibly even including the mentally retarded children unless they may not legally be reported on the same form. Such information should include but need not be limited to child name; birth date; address (street, city or post office, and zip code); father's first name; mother's first name; diagnosed primary handicap; diagnosed secondary handicap; date of diagnosis (if obtainable); education status (type of education he is currently receiving; type of education he should be receiving); date of most recent entrance into special education; date of entrance into the local district; reason for and date of most recent attrition from special education; and date of attrition from the local district. Each of the two parts of the variable called education status could be coded as a two-digit number, with the first digit representing the handicapping condition for which the education is oriented and the second digit representing the type of educational program. Some examples of this are shown in Table 1. Using this coding scheme, a child who is currently in a local day special class for the emotionally disturbed and is on the waiting list for one of the state institutions would be coded as 74/72; a child who is currently in regular education awaiting entrance into a resource room program for the physically handicapped would be coded as 01/86.

When the initial handicapped children file (alphabetically by child name within handicapping condition within local district) has been generated, two copies of an automated list of the children should be sent to each local district. The updating of the file can be done either periodically or at year end. Because it is always preferable to spread a workload over the greatest possible time period, it is recommended that changes to the automated list be sent to the state periodically (at least bi-monthly) by the local districts. Simple forms (similar to the form requesting the initial information) specifically for this purpose can easily be designed so that a minimum of information needed for updating would be required of the local districts. A continuing system such as this that would require only periodic updating has the advantage of significantly reducing the volume of reporting to the state which the local education agencies must do. For example, instead of having to report all identified children each year, a local agency needs to report only the changes to that population, which may involve only 20-25 percent of the children.

As should be apparent from the above discussion, the local education agency should have the responsibility for keeping all handicapped child data and be the focal point of data collection. Realistically, these assumptions are based upon soliciting the cooperation of the state schools and institutions under HRPC to interact with the local districts. If HRPC will send to each local district a list of the district's children who are enrolled in or on a waiting list

TABLE 1

POSSIBLE CODING SCHEME FOR THE VARIABLE EDUCATION STATUS

First Digit = handicapping condition for which the education is oriented

0 = none
1 = educable mentally retarded
2 = trainable mentally retarded
3 = blind
4 = partially sighted
⋮
7 = emotionally disturbed
8 = physically handicapped

Second Digit = type of educational program

0 = none
1 = regular class
2 = residential school
3 = special school
4 = day special class
5 = cooperative special class
6 = resource room
7 = itinerant instruction
8 = homebound instruction

for an HRPC school or institution and if the local district will then update the list as necessary (e.g., indicating that a child has moved or is enrolled in a newly created program at the local level) and, after recording all the information that they need, will send that corrected list to HRPC, then such interaction can be of benefit to both parties.

From the current handicapped children file, many reports of interest (informational and statistical) and all of the child related data needed by the special education Manpower Requirements Projection Model can easily be generated. The records of those children who are reported as attritions should contain the date of such attrition and should be flagged and retained on an alphabetically sorted file for at least one year to ensure that intra-state transfers are recognizable using the variables for date of most recent entrance into special education and/or the local district, and reason for and date of most recent attrition from special education and/or the local district; a child who has moved from one local district to another will be reported as an attrition from the first and an entrant into the second but, when data is tabulated, will not be included in state-wide totals for new entrants and attritees.

The recommended systems design for such a modified pupil accounting system is presented in Figure 3. The alphabetically sorted handicapped children file is used to eliminate the possibility of a child being reported by more than one local district, as would be the case if a child moved and was reported as a new entrant by his new district before the old district reported him as an attrition. In this case, the child's record can be flagged to indicate that this has happened. The alphabetic file could also be used to generate the data needed by the model if interim totals by district are not needed by the Special Education Division for any purpose (however, these interim totals are the basis of the reimbursement which the local education agencies receive for the previous year's special education).

Data on children with extreme learning problems and speech impairments may be requested in tabulated form from each district as described in Section III above. If these two handicapping conditions are to be included in the manpower projections, matrix forms should be used by the local districts for beginning of year recording of enrollments (by age, handicap, and educational program), and children on the waiting lists (by age and handicap), and for recording the numbers of newly diagnosed children, intrastate transfers (by age and handicap), and attritions from the handicapped child population (by age, handicap, and reason) during the year.

VIII. RESOURCE REQUIREMENTS—MANPOWER

It is estimated that $3\frac{1}{2}$ man-months will be required for a systems analyst/programmer to accomplish the required systems design, coordination, and computer programming/debugging for the modified pupil accounting system as outlined in Section VII. In addition, approximately one man-month will be

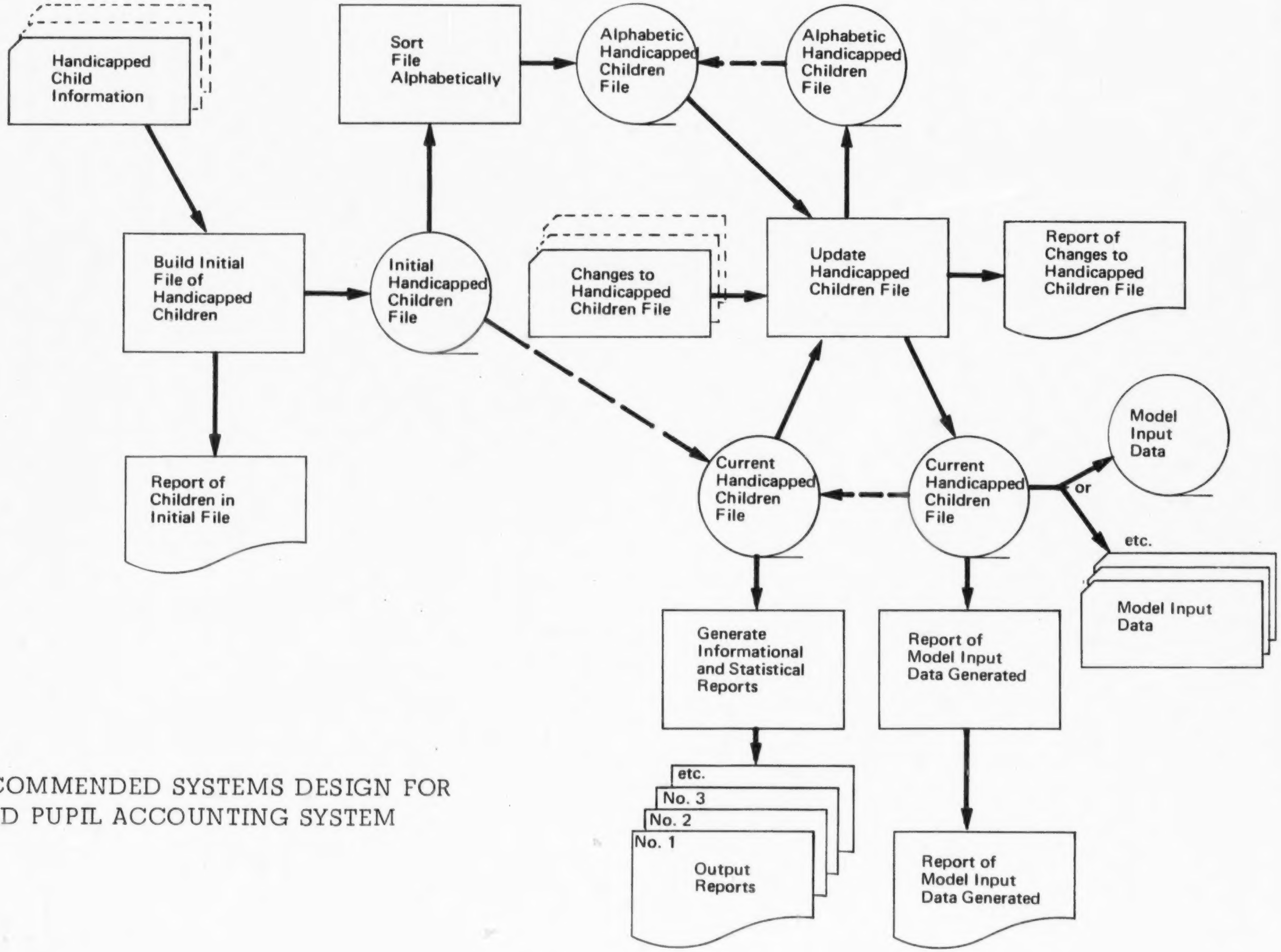

Handicapped Child Information
Build Initial File of Handicapped Children
Report of Children in Initial File
Initial Handicapped Children File
Sort File Alphabetically
Alphabetic Handicapped Children File
Alphabetic Handicapped Children File
Changes to Handicapped Children File
Update Handicapped Children File
Report of Changes to Handicapped Children File
Current Handicapped Children File
Current Handicapped Children File
or
Model Input Data
etc.
Model Input Data
Generate Informational and Statistical Reports
Report of Model Input Data Generated
etc.
No. 3
No. 2
No. 1
Output Reports
Report of Model Input Data Generated

FIGURE 3. RECOMMENDED SYSTEMS DESIGN FOR A MODIFIED PUPIL ACCOUNTING SYSTEM

required to design and/or redesign data collection instruments and to obtain approval of the new forms.

The task of coordinating with the local districts (i.e., training local people to fill out the new forms, engendering local support for the information system, and ensuring completeness and validity of the reported data) could probably be assigned part-time to all the consultants in the Special Education Division. This task is estimated to require approximately 4 man-months of effort. After the big push to get the system initiated, these consultants will be the only state level personnel that are familiar enough with the situations in the local districts to make accurate judgments about the completeness and validity of the initial data. Thereafter, the task of ensuring that data to update the system is reliable will require very little effort (approximately $1\frac{1}{4}$ man-months annually) on the part of the consultants.

The Director of the Special Education Division, by virtue of his position and influence, is the only person who can negotiate with HRPC and other state agencies to obtain their cooperation. The amount of time that this will take is dependent upon the attitudes and the organizational structure of these agencies. The personnel in HRPC seem to be very interested in cooperating and exchanging information, but this analyst was not able to contact other state agencies involved in diagnosing children to determine the probability of their coordination with local education agencies.

IX. PERSONS INTERVIEWED

The persons interviewed by the ORI (Leasco) representative, Miss Beverly Johns, during the week of 25 August 1969 were:

Dr. Joy H. Gubser	Associate Superintendent, Elementary and Secondary Education, Oregon Department of Education
Mr. Mason D. McQuiston	Director, Special Programs, Special Education Division, Oregon Department of Education
Mr. John E. Taylor	Supervisor, Handicapped Children, and Consultant, Deaf and Hard-of-Hearing Children, Special Education Division
Mr. Robert D. Clark	Consultant, Speech Correction, Special Education Division
Mr. Raymond S. Myers	Consultant, Education of Visually Handicapped Children, Special Education Division
Mr. Norman Reynolds	Consultant, Education of Crippled and Chronically Ill Children, Special Education Division
Mr. Ray S. Rothstrom	Consultant, Program for Mentally Retarded Children, Special Education Division
Mr. Howard N. Smith	Consultant, Education of Children with Emotional and Extreme Learning Problems, Special EducationDivision
Mr. James T. McAllister	Coordinator, Title VI ESEA Projects, Special Education Division
Mr. Carl Christoffersen	Director, Computer Services Division, Oregon Department of Education

Mr. Milton Baum	was Director of School Finance and Research, Administrative Services Division, Oregon Department of Education; position now titled: Coordinator, School Finance and Statistics Services, Educational Fiscal Management Services Division
Dr. Jerry McGee	Consultant, Mentally Retarded Children, Mental Health Division, Human Resources Planning Committee
Mr. Carl A. Haugerud	Administrator, State Schools for the Blind and Deaf, Special Schools Division, Human Resources Planning Committee

X. CURRENT REPORT FORMATS

- HC12 — Estimate of Claim for Reimbursement for Education of Handicapped Children
- HC13 — Claim for Reimbursement for Instruction of Handicapped Children, with Supplementary Sheets IV, V, and VI
- MRI — Application for Certification of Mentally Retarded Child

HC12—Revised 1953

OREGON BOARD OF EDUCATION
Dale Parnell, Supt.
Salem, Oregon 97310

Estimate of Claim for Reimbursement for Education of Handicapped Children

Any school expecting to make a claim for reimbursement for expenditure of funds for the education of one or more handicapped children shall file this estimate with the Superintendent of Public Instruction prior to October 1 of the school year in which the services are to be offered. The law provides that unless an estimate is submitted and the program of the district is approved claims cannot be allowed.

The estimate should be sent to the State Department of Education, Salem, Oregon.

School District Number .... County .... School Year 19......-19......

Name of School District .... Address ....

PROVISIONS GOVERNING REIMBURSEMENT OF SCHOOL DISTRICTS FROM FUND FOR EDUCATION OF HANDICAPPED CHILDREN

A. A school district may be reimbursed up to one and one-half times the per capita cost for any expenditure of funds for the instruction of handicapped children that is in excess of the regular per capita cost for the instruction of normal children in such districts, provided that:

1. The handicapped children have been "certified" by the Superintendent of Public Instruction (See Bulletin HC2).
2. The program for education of the handicapped children in the school has been approved by the Superintendent of Public Instruction.
3. The district has submitted an estimate of the amount of the claim for reimbursement. (Form HC12 Revised 1953 shall be used in submitting this estimate.)
4. The teachers employed meet the certification requirements set up by the State Board of Education for teachers of handicapped children.
5. The claim of the district submitted in accordance with Section 18 of the law is approved. Claims computed after the district's books have been audited should be submitted on Form HC13 not later than October 1 following the close of the fiscal year. Any school district that submits Form HC12 will be supplied with this form by the Superintendent of Public Instruction prior to the time for the submission of claims. Forms may also be obtained from the county school superintendent.

B. If state funds appropriated for the reimbursement of school districts are insufficient to pay all approved claims in full, the available funds shall be prorated among the districts making claims.

SECTION I. ESTIMATED NUMBER OF HANDICAPPED CHILDREN IN YOUR DISTRICT WHO WILL BE CERTIFIED FOR SPECIAL SERVICES

	Number of Resident Pupils		Number of Non-Resident Pupils	
	Elementary	High School	Elementary	High School
Blind and Partially-Sighted				
Deaf and Hard-of-Hearing				
Speech Defective				
Low Vitality				
Crippled				
Emotionally Disturbed				
Extreme Learning Problems (Exclusive of Mental Retardation)				
Total				

(REPRODUCED FROM STATE FORM)

SP*14321-581

SECTION II. ESTIMATED CLAIM FOR REIMBURSEMENT FOR SPECIAL SERVICES FOR HANDICAPPED CHILDREN IN YOUR DISTRICT

Four types of special services to handicapped children are recognized for purposes of reimbursement. These four types are:

A. Instruction in the Home or Hospital
B. Transfer to Other Districts
C. Instruction in the Regular Classroom
D. Instruction in the Special Room or School

Each of these is treated separately in the pages that follow.

The general principle to follow in determining the amount for which reimbursement may be claimed is that the school district must pay the first per capita cost and that claim for reimbursement may be made for any amount in excess of the regular per capita cost but it cannot exceed one and one-half times such cost.

A. Instruction in the Home or Hospital

Excess cost of the regular per capita cost may be claimed for the instruction of home-bound or hospitalized children. This cost may be estimated on a yearly or monthly basis.

School districts cannot be reimbursed for more than five hours of home or hospital instruction per week. Not more than two hours of this instruction may be given in any one day. The minimum number of school days on which a child could receive the maximum amount of instruction allowed would be three.

Any child who receives the maximum amount of home instruction allowed whether on a three, four, or five day per week basis, is to be counted in full school attendance since he has received the maximum amount of instruction permitted him and since he has had the full attention of a teacher during the instructional period.

A child who has had five hours of home instruction for at least three days per week, for four weeks, has had one school month of such instruction. A child who has had such instruction for nine school months has had one school year of such instruction.

In computing the cost of home instruction:

1. Estimate the number of school days for which a child will receive home or hospital instruction.
2. Estimate the total amount to be spent on home-bound cases, this amount to include the hourly wage of the home or hospital teacher and the cost of approved supplies.
3. Estimate the regular per capita cost for the district for the current school year.
4. The difference between items 2 and 3 will be the estimated excess cost.

Names and/or Number of Children to Receive Home Instruction

Name	Age	Type of Handicap	Estimated No. of Months of Service Needed	Estimated Claim For Reimbursement (Excess Cost)
Estimated Number in Addition to Above Names		No.		

(REPRODUCED FROM STATE FORM)

Total Estimated Excess Cost . . . . $..................

B. Transfer to Other Districts

This cost may be estimated on a yearly basis or, if instruction is for a shorter period, on a monthly basis.

In computing the cost of transferring children to other districts for special education services:

1. Estimate the total amount that is to be spent on each transferred case. This amount should include the tuition paid to the other district and may include transportation costs.

2. Estimate the regular per capita cost for the district.
3. The difference between items 1 and 2 will be the estimated claim. It cannot exceed one and one-half times the regular per capita cost of the home district for any one pupil.

Names and/or Number of Known Cases to be Transferred

Name	Age	Type of Handicap	District or School to which Child will be Sent District No. County	Estimated Claim for Reimbursement
Estimated Number in Addition to Above Names		No. ______		

Total Estimated Cost . . . . $______

C. Instruction in the Regular Classroom

This program applies to children who are primarily under the care of the regular classroom teacher but who are taken from the room temporarily for individual instruction.

Since this instruction is over and beyond that given in the regular classroom all expense incurred in connection with it represents excess cost. The claim cannot exceed one and one-half times the per capita cost. Items which may be included in computing the cost of this service are:

1. Teacher cost (to be based on the schedule in Form HC16, a copy of which is attached) when the teacher employed holds the proper certificate to teach handicapped children. Sixty-five percent of the teacher's salary may be claimed for those persons in charge of the total program in special education: fifty percent of the salary may be claimed for those persons in charge of only one phase or a part of a program.
2. Extra supplies or transportation furnished handicapped children and not furnished normal pupils.

Names of Teachers for Whom Reimbursement Will be Claimed	Estimated Case Load	Salary of Teacher	% of Salary To Be Claimed	Type of Certificate Held	Estimated Claim Per Teacher
			%		$
			%		$
			%		$
			%		$
			%		$
			%		$
			%		$

(REPRODUCED FROM STATE FORM)

Total Estimated Salary Claim for Reimbursement . . . . $______

Estimated claim for transportation ______ $______

Estimated claim for supplies, etc. ______ $______

Estimated claim for reader service to blind or partially-sighted children ______ $______

Total estimated claim for instruction in regular classroom ______ $______
(Sum of above items)

D. Instruction in Special Schools or Special Classes

This program applies to the pupil who is taken from the regular classroom and is primarily under the care of a special room teacher, or is with children housed in a special building for the handicapped.

To compute the cost of instruction in special schools or special classes:

1. Compute the total cost of maintaining the special room in terms of per capita cost (on the basis of A. D. A.).
2. Compute the regular per capita cost for the district.
3. The difference between item 1 and item 2 (up to one and one-half times item 2) multiplied by the A. D. A. of the room or school constitutes the claim. (Where different rooms or schools are maintained for different types of handicaps each should be treated separately.)

Special Schools or Classes to be Operated

(List each school separately)

Name of School or Class	Type of Handicapped Child Accepted	Estimated Enrollment	Number of Teachers	Estimated Excess Cost of Operation

Total Estimated Claim for Reimbursement
For Special School or Special Class . . . . $

SECTION III. RECAPITULATION

Total Estimated Amount of Claim for Reimbursement for Instruction of Handicapped Children for the School Year 19......-19.......

Type of Instruction	Number of Children		Estimated Cost
	Elementary	High School	
Home Instruction (Item A)			
Transfer to Other Districts (Item B)			
Instruction in Regular Classroom (Item C) . . .			
Instruction in Special Classroom or School (Item D) . . .			
Total Estimate of Amount of Claim			

(REPRODUCED FROM STATE FORM)

....
Signature of Authorized Officer of District Title Date

(Note: The person signing this estimate should be authorized to do so by official board action.)

(Do not write below this line)

Having examined the above estimate of claim for the school year 19......-19...... I find it to meet the provisions of Oregon Law and approve the plan it represents.

Date .... Signed ....
Assistant Superintendent in charge of Special Education,
State Department of Education

Form HC13—Revised 1956—(Reprinted 1961)

OREGON BOARD OF EDUCATION
Dale Parnell, Supt.
Salem, Oregon 97310

Please Do Not Write in This Space

Total Claim . . . . . $..........................
Approved Claim . . . .
Reimbursement . . . .

Claim for Reimbursement for Instruction of Handicapped Children

School District Number .... County ....

District Name .... Address ....

School year for which claim is submitted 19..........–19.......... Date submitted ....

Average daily membership for year: Elementary .... Jr. High .... High School ....

SECTION I. PROVISIONS GOVERNING REIMBURSEMENT TO SCHOOL DISTRICTS FOR THE EDUCATION OF HANDICAPPED CHILDREN

A. A school district may be reimbursed up to one and one-half times its per capita co[illegible] any expenditure of funds for the instruction of handicapped children that is in excess of the regular per capita [illegible] ructing normal children in such district, provided:

1. The program for education of the handicapped children in the sc[illegible] has been approved by the Superintendent of Public Instruction.
2. The district has presented and had approved by the S[illegible] nt of Public Instruction the Estimate of Claim for Reimbursement.
3. The handicapped children have been cert[illegible] Superintendent of Public Instruction, and the special teachers have been properly certificated.
4. The notarized Claim for Reimb[illegible] has been presented to the Superintendent of Public Instruction not later than October 1 following the close of [illegible] scal year.

(REPRODUCED FROM STATE FORM)

B. Available funds are prorated among the districts with claims in excess of $500 when the state funds appropriated are not sufficient to pay all claims in full.

SECTION II. GENERAL DIRECTIONS

A. Present this claim to the Superintendent of Public Instruction not later than October 1 for the fiscal year closing June 30, immediately preceding. Do not present a claim unless the cost of instructing handicapped children exceeds the regular per capita cost of the district. The audited Annual Financial Report of the school district must accompany the claim when reimbursement is requested under Sections III, IV, and VI. It is not required when claim is made under Section V only.

B. Claims are classified under four general heads according to the nature of the program provided: (1) Home Instruction; (2) Transfer to Other Districts; (3) Special Services in Addition to the Regular Classroom; (4) Instruction in the Special Classroom or School.

C. Complete only that section of the form relating to the type of service for which claim for reimbursement is to be made.

D. The Recapitulation, Section VII, is to be completed on all claims.

SUPPLEMENTARY SHEET, IV
Form HC13 Revised 1956

SPECIAL EDUCATION SECTION
State Department of Education
LEON P. MINEAR, Supt.
Salem, Oregon

DATA ON CERTIFIED PUPILS TRANSFERRED TO ANOTHER DISTRICT

Name of Pupil (Please Alphabetize)	Grade	No. of Months Instructed	Nature of Handicap	County and Dist. to Which Transferred	Disposition of Case			
					To Be Cont.	To Be Discontinued		
						Corr.	Moved	Other (Specify)

SUPPLEMENTAL SHEET V
Form HC13 Revised 1956

SPECIAL EDUCATION SECTION
OREGON BOARD OF EDUCATION
Dale Parnell, Superintendent
Salem, Oregon 97310

D37-23

Data on Certified Pupils Receiving Special Instruction in Addition to That of the Regular Classroom

Report for School Year Sept., 19......., to June, 19...... Name of Special Teacher ....

Please give the following data on all certified handicapped children taught during the school year for which the report is made by the special teacher whose name appears on this form.

Use specific rather than general terms in describing the nature of the child's handicap; i.e., articulation, delayed speech, etc. instead of speech.
Where instruction was started, terminated, and reactivated for a child during the school year, please indicate this fact and give the dates in each case.

NAME OF PUPIL (Please Alphabetize)	Age	Grade	Nature of Handicap	Date Spec Inst. Was Started (Month and Day)	No. of Times Per Wk Child Recd Inst.	Length of Each Inst Period	Date Spec. Inst. Was Terminated (Month and Day)	DISPOSITION OF CASE			
								To Be Cont.	To Be Discontinued		
									Corr.	Moved	Other (Specify)

SUPPLEMENTARY SHEET, VI
Form HC13 Revised 1956

(REPRODUCED FROM STATE FORM)

SPECIAL EDUCATION SECTION
State Department of Education
LEON P. MINEAR, Superintendent
Salem 10, Oregon

DATA ON CERTIFIED PUPILS ENROLLED IN SPECIAL CLASSES OR SPECIAL SCHOOLS

Special Class or Special School (Title or Name) ....

Name of Pupil (Please Alphabetize)	Age	Grade	No. of Months In Special Class or Special School	Nature of Handicap	Name of Teacher	DISPOSITION OF CASE			
						To Be Cont.	To Be Discontinued		
							Corr.	Moved	Other (Specify)

MR 1 - 1963 (Revised)

State Department of Education
LEON P. MINEAR, Superintendent
Salem 10, Oregon

Page 1 of 3 page form

Application for Certification of Mentally Retarded Child

Application is hereby made for the certification of the child named below as "mentally retarded" under the provisions of ORS 343.410 to 343.520.

Part I. Administrative Data

Name of School where special class is located .... School

District No. .... County .... Check one: Resident of district .... Non-resident of district ....

Date of this application: Month .... Day .... Year ....

Part II. Identifying Data

Full name of child .... Male .... Female ....

Child's home address ....

Child's birthplace: City .... State ....

Child's birthdate: Month .... Day .... Year ....

Chronological age at time of application: .... years and .... months.

Present school grade, if any .... School last attended or attending ....

Father's full name .... occupation ....

Mother's full name .... cupation ....

(REPRODUCED FROM STATE FORM)

ACTION OF STATE DEPARTMENT OF EDUCATION

Date received from district ....

Approved ( )
Not Approved ( )

Date reviewed with State Board of Health ....

Date of notification of certification sent to district ....

Comment ....

....
By: Consultant, Education of Mentally Retarded Children
For: Superintendent of Public Instruction

TABLE 2

SUMMARY OF DATA DEVELOPMENT STATUS

OREGON

DATA ELEMENTS			LOCAL PUBLIC SCHOOL DISTRICTS			INSTITUTIONS UNDER HRPC, MENTAL HEALTH DIVISION			SCHOOLS UNDER HRPC, SPECIAL SCHOOLS DIVISION			PRIVATE SCHOOL DATA
			CURRENT STATUS	**METHOD OF DEVELOPMENT**	**SOURCE OF DATA**	**CURRENT STATUS**	**METHOD OF DEVELOPMENT**	**SOURCE OF DATA**	**CURRENT STATUS**	**METHOD OF DEVELOPMENT**	**SOURCE OF DATA**	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	**ENROLLED**	**AGE**	Not available except for mentally retarded	Modify existing report form and reporting schedule to implement and maintain a modified PAS	Authorized officer of school district who is in charge of special education	Exists on punched cards	Produce cross tabulations by district or residence and transmit to applicable district	Biometrics section through division director	Available but not automated	Use modification of local district report format for transmittal to applicable local districts	1. Division director 2. Individual school through division director	On voluntary basis, data could be requested to be transmitted to applicable local districts on modification of local district report format
		HANDICAPPING CONDITION	Available at year end on current report forms									
		EDUCATION PROGRAM										
	ON WAITING LIST	**AGE**	Not available. Recording of such children is contingent upon local policy of referral and diagnosis	Same as above if locals can be convinced of value of this data	Same as above	Exists but is not automated	Use modification of local district report format for transmittal to applicable local districts	1. Division director 2. Individual institution through division director	Available but not automated	Same as above	Same as above	Not applicable
		HANDICAPPING CONDITION										
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	**NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION**	**AGE**	Spotty—often children newly certified only when enrollment is imminent	1. Cooperative directive to report diagnosis to locals 2. Use modified forms to add these children to PAS	Same as above	Not available but exists on punched cards for enrollees and on manual lists for those on waiting list	Same as above	1. Division director 2. Biometrics section and individual institution through division director	Not available but exists unautomated	Same as above	Same as above	On voluntary basis, data could be requested to be transmitted to applicable local districts on modification of local district report format
		HANDICAPPING CONDITION										
	INTRA-STATE TRANSFERS	**AGE**	Not available	Use modified forms to change records in PAS	Same as above							
		HANDICAPPING CONDITION										
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	**AGE**	Not available except for mentally retarded	Use modified forms to change records in PAS	Same as above							
		HANDICAPPING CONDITION	Available at year end on current report forms									
		REASON										
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Available only by grade	Either translate into age or develop one with age basis	School finance and statistics services section, Department of Education	X	X	X	X	X	X	X
DATA USED TO SIMULATE SPECIAL EDUCATION	**EDUCATION PROGRAM MIX TRENDS**			Not applicable	Director of Special Education and/or his staff of consultants	Available as defined by legislation, policy, and planning	Not applicable	1. Division director 2. Individual institution through division director	Available as defined by legislation, policy, and planning	Not applicable	1. Division director 2. Individual school through division director	Request voluntary information on individual school policy
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	**TARGET GROUP**	Available as defined by legislation, policy, and planning									
		EDUCATION PROGRAM										
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Not available except for itinerant teachers	Modify existing report form	Authorized officer of school district who is in charge of special education	Available by head count	Not applicable	Same as above	Available by head count	Not applicable	Same as above	Request voluntary information from each school

PENNSYLVANIA STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

PENNSYLVANIA COMMONWEALTH ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the model, a visit was made to each of the 50 state special education agencies in order to familiarize the state with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the Commonwealth of Pennsylvania, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

The Commonwealth of Pennsylvania has one of the largest special education programs in the country. Many private schools with special education programs , for example, receive state financial assistance. Special schools/hospitals, sheltered workshops, and day activity centers educate and train over 5,000 mentally retarded children annually.

The Bureau of Special Education, Department of Education, and the Office of Mental Retardation of the Department of Public Welfare are very eager to implement the proposed model. The Bureau of Special Education, for instance, indicated that it would be willing to redesign all current reporting forms, if necessary, to establish the required data flow. In fact, this may have to be done.

Unfortunately, the Bureau of Special Education has not had wide experience in using electronic data processing equipment in the tabulation of its information. The Bureau of Special Education has recently received permission to use the computer services of the Department of Education. Without funding from Federal sources to pay for these services, however, it does not appear that the proposed model can be established in Pennsylvania.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The responsibility for the education of handicapped children in Pennsylvania is illustrated in the informal organization chart shown in Figure 1. Only those organizations having educational or informational service functions for handicapped children have been shown. The Pennsylvania Bureau of Special Education has the legal responsibility for administering public school special education programs and state-aided private school special education programs for the following groups of exceptionality:

a. Educable Mentally Retarded

b. Trainable Mentally Retarded

c. Physically Handicapped

d. Brain Injured

e. Visually Impaired

f. Hearing Impaired (including children in state-owned deaf and hard of hearing school)

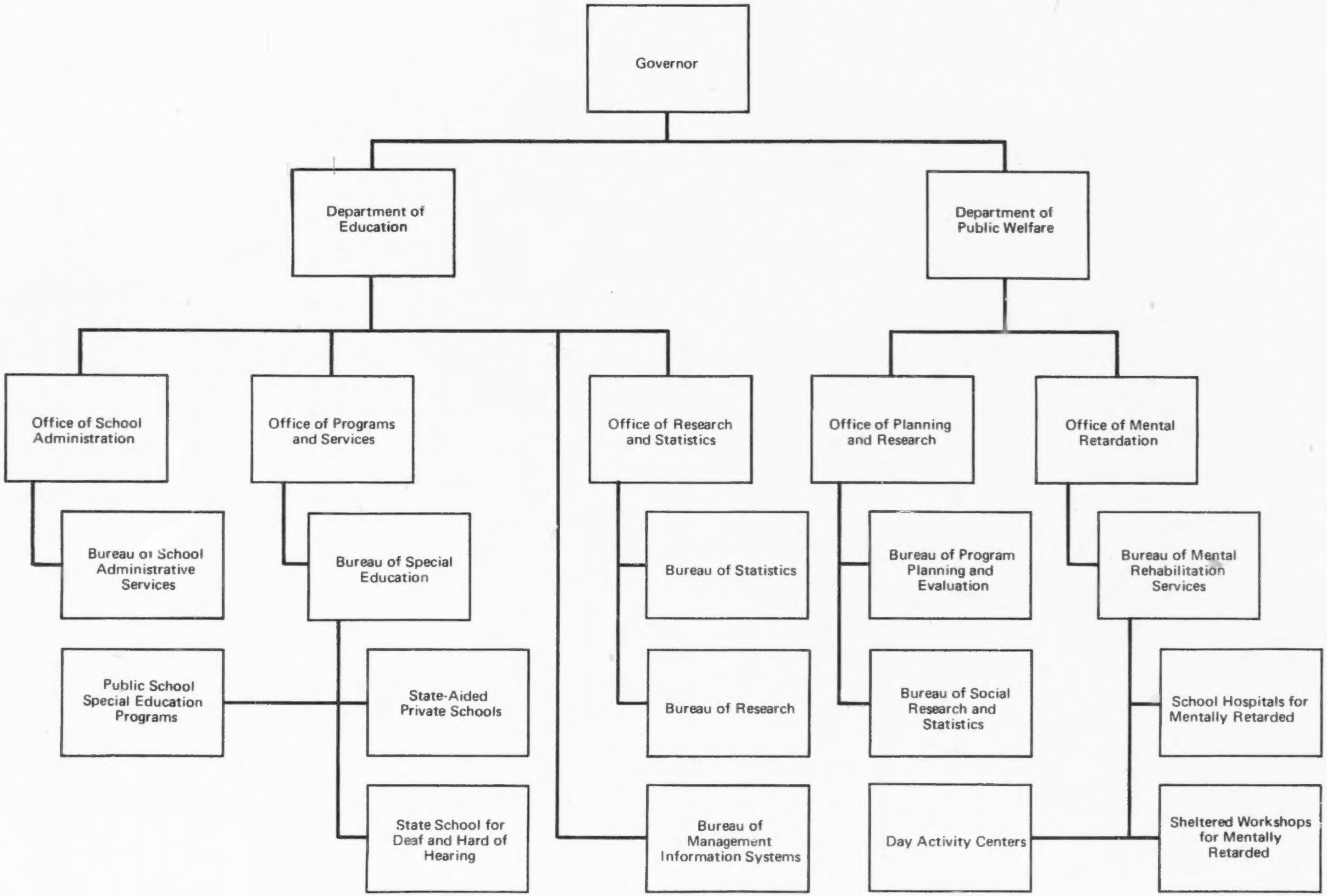

Governor
Department of Education
Department of Public Welfare
Office of School Administration
Office of Programs and Services
Office of Research and Statistics
Office of Planning and Research
Office of Mental Retardation
Bureau or School Administrative Services
Bureau of Special Education
Bureau of Statistics
Bureau of Program Planning and Evaluation
Bureau of Mental Rehabilitation Services
Public School Special Education Programs
State-Aided Private Schools
Bureau of Research
Bureau of Social Research and Statistics
School Hospitals for Mentally Retarded
State School for Deaf and Hard of Hearing
Bureau of Management Information Systems
Day Activity Centers
Sheltered Workshops for Mentally Retarded

FIGURE 1. ORGANIZATION OF SPECIAL EDUCATION RESPONSIBILITIES IN PENNSYLVANIA

g. Speech Correction
h. Speech and Hearing
i. Aphasic
j. Socially and Emotionally Maladjusted
k. Educationally Retarded
l. Gifted and Talented

The Pennsylvania Department of Public Welfare, Office of Mental Retardation, has responsibility for the institutional mentally retarded child population, while the Office of Mentally and Emotionally Disturbed has responsibility for the emotionally disturbed children in Pennsylvania institutions.

IV. DATA ELEMENT EVALUATION

Some specific data elements are necessary to the use of the projection model. The information provided by these data elements may also be very useful to the Bureau of Special Education for other operational analyses. These data elements and their potential sources are discussed in the following paragraphs.

Number of Children Identified As Needing Special Education

Enrolled. Each year the Bureau of Special Education receives summary public school special education enrollment data from the 66 counties of Pennsylvania and from the cities of Philadelphia and Pittsburgh. This summary data is contained on the "Annual Special Education Programs/Service Report" (form No. PIBE-338). The enrollment information from this source is limited to an elementary-secondary, full time-itinerant breakdown. More specific enrollment data is supplied through the"Special Education Report" (form No. PIBE-284). Name and single year of age data is reported for all pupils in full-time classes for (a) mentally retarded children, (b) physically handicapped children, (c) visually impaired children, and (d) hearing impaired children. In order to meet the data requirements of the proposed Manpower Requirements Projection Model, some modifications will have to be made to these public school enrollment reporting procedures. Such modification is outlined in Section VII, "Recommendations," of this report. At this point, it should only be noted that enrollment data for public school special education programs is not sufficiently complete for implementing the model.

In accordance with its responsibility for the state-owned deaf and hard-of-hearing school and the state-aided private schools, the Bureau of Special Education receives "Annual Educational Report, State-Owned and State-Aided Schools" (Form PISE 9) from these institutions. In some of these institutions the Bureau of Special Education provides the education for the emotionally disturbed children. The state-aided private schools include those educating the blind, deaf, cerebral palsied, brain damaged, muscular dystrophied, and socially and emotionally disturbed children. The annual reports do not provide data on the ages and specific handicapping conditions of the children enrolled in these schools. The state-aided private schools, however, submit "Applications for Approval of Enrollment" (form No. PIBE-448) to the Bureau of Special Education, and these applications provide the age and handicapping conditions of the children. In July of the school year, an updating of the school population is sent to the state (form No. PIBE-448a), reporting those children continuing in the program. By September 15 of each year, those children not continuing in the program are reported to the state on form PIBE-448b.

With the exception of the state-owned school for the deaf and hard of hearing, then, the enrollment data required by the model is available for state-aided private schools.

The Office of Mental Retardation of the Pennsylvania Department of Public Welfare receives annual data on all mentally retarded persons receiving care at state expense from the Office of Planning and Research. This data applies to state schools/hospitals, state-supported private schools for the mentally retarded, and sheltered workshops for the mentally retarded. Enrollment data from the education and training programs of these facilities is sufficient to run the Manpower Requirements Projection Model; age and degree of retardation are available.

Waiting Lists. Waiting lists of children diagnosed as needing special education but not served by a public school special education program are not currently available at the state level. The same is true for the state-owned and state-aided schools. The Bureau of Special Education will have to request such data from the school districts. (See Section VII, "Recommendations.")

Waiting list data for institutions is available for inclusion in the model through the Office of Planning and Research of the Department of Public Welfare. This data is also available for mentally retarded applicants awaiting service at sheltered workshops and day activity centers.

Number of Children Moving Into and Out Of the Handicapped Child Population

In order to obtain the number of children who have been newly diagnosed as needing special education, new reporting directives would have to be developed and issued by the Bureau of Special Education and the Office of Mental Retardation. (See Section VII, "Recommendations.")

In addition to children newly diagnosed as handicapped each year by diagnostic clinics or schools, it is possible that school programs will acquire children who have been previously diagnosed or identified as handicapped in other school districts or other parts of the state. Rather than reporting these children again as newly diagnosed (which could distort the incidence picture in the state), these intra-state transfers should be reported separately. Because no mechanism exists to monitor these transfers into special education programs, one would have to be developed, by the Bureau of Special Education; such monitoring would enable respondents to indicate which children reported that year had transferred into their program from another special education program in the state. These intra-state transfers could then be tabulated fairly simply from these forms when received.

The state-owned school for the deaf and hard of hearing as well as the state-aided private schools could also be asked to indicate intra-state transfers into their programs, as part of the enrollment data that the Special Education Bureau would be requesting each year for inclusion in the model. The same procedure would have to be followed by the Office of Mental Retardation for schools, hospitals, workshops, and activity centers for the mentally retarded.

In order to obtain the data on the number of children who attrited from the identified handicapped population, the Bureau of Special Education would have to develop another reporting form for public school special education attrition. Private school special education attritees could be obtained from the "Annual Educational Report for State-Owned and State-Aided Schools" with slight modification of the form to obtain age and handicap condition data. The Bureau would also have to query those school districts that maintain current waiting lists in order to learn of those children that dropped off the lists because they (a) left the state, (b) died, (c) became too old to be classed as children.

State schools, hospitals, workshops, and day activity centers report the attritions from their special education programs to the Office of Mental Retardation. This data element is available, then, for the model.

General Population Projections

The projected number of children in the general population, by single year of age, for each year for which special education manpower projections ate to be made, presents little problem in data collections, since Title VI project applications require this information, at least for the coming fiscal year. Projections required by the model are also available for future years and, applying incidence rates (once established) to the number of new entrants should present no difficulty.

Data Used to Simulate Special Education

Trends in the proportionate number of children served in each educational program, by handicapping condition and single year of age, are available for public school special education programs and state-owned and state-aided schools from the Bureau of Special Education. This same information is available from the Office of Mental Retardation for state schools, hospitals, workshops, and day activity centers for the mentally retarded.

The personnel/pupil contact ratios for the types of public school personnal, in direct contact with the children in each target group in special education programs, form another data item that is readily available from the Bureau of Special Education. This information is published in Standards for Special Education Programs for Exceptional Children by the Pennsylvania Department of Education.

For state residential schools, the recommended personnel/pupil ratios are determined by the Superintendents of the individual institutions. In most instances, the curriculum is determined, teachers are hired, and the number of children in each class is determined on an individual basis for each teacher. The actual ratios, therefore, may vary from the recommended ratios. This may also be the case in each of the private schools serving handicapped in the state.

For state residential schools, recommended personnel/pupil rations may have to be obtained from the Department of Public Welfare. Likewise, ratios used in private schools, which may not now be known at the state level, will have to be requested from each of these schools.

Employment by Personnel Types

Public school special education personnel data can be obtained from the annual "Special Education Reports." This data is available from the "Annual Education Report, State-Owned and State-Aided Schools.

Personnel data for the nine state schools and hospitals under the jurisdication of the Office of Mental Retardation is contained on form No. PW 136B1. Personnel data for the mental retardation workshops and day activity centers is available from the Office of Planning and Research of the Department of Public Welfare.

V. PROCESSING POTENTIAL

Hardware and Software

In Pennsylvania, a committee has been established by the State Education Department to assign priorities for data processing on the Department's computer located within the Bureau of Management Information Systems. The Bureau of Special Education has received high priorities on two of the tasks that require electronic data processing: (a) pre-school census, and (b) homebound instruction summary. All other data compilations are manually accomplished by the Bureau's staff at present.

The problem of obtaining computer services for the proposed model is further complicated by the lack of funds needed to pay for computer services. At the present time, then, it appears that the model may only be implemented in Pennsylvania if Federal funds are made available for the necessary computer services.

VI. ADDITIONAL FACTORS

Acceptance of Model Concept

The Bureau of Special Education is eager to establish the information flow and obtain the necessary processing capability for implementing the proposed model. Similarly, the Office of Mental Retardation also expressed a desire to see the model implemented in Pennsylvania. The Bureau of Social

Research and Statistics of the Department of Public Welfare felt that there would be no problem in coordinating its activities with the Bureau of Special Education in developing and maintaining the information flow serving as the input to the model.

Usefulness of Model

There is every indication that the Manpower Requirements Projection Model will assist in the planning of services for handicapped children in Pennsylvania. At the present time, projections of future manpower requirements in the area of special education are very limited: 1-year projections of teachers and pupils, as anticipated by the local school district superintendents. These "anticipated enrollments" are submitted as an attachment to the "Annual Budget-District-Operated Programs and Services for Exceptional Children," (form No. PIBE-398).

VII. RECOMMENDATIONS

As a result of the interviews with some individuals responsible for special education programs in Pennsylvania, several actions necessary for implementing the Manpower Requirements Projection Model can be recommended. In order to close the data gaps between current data availability and the amount of data required by the model, the Bureau of Special Education must:

a. Develop the procedures and forms necessary to obtain special education waiting list data from the school districts. This data must be collected according to child's age and specific handicapping condition as diagnosed by qualified diagnosticians. This procedure would also apply to the state-owned and state-aided schools for exceptional children that are under the jurisdiction of the Bureau of Special Education.

b. Develop the procedures and forms necessary to capture information on those children that have been newly diagnosed as needing special education. All school district superintendents should be required to complete these forms and supply the data by the fall of eacy year. Because of the high level of effort imposed on the superintendents by this task, considerable emphasis must be placed on the importance of collecting this data by the Bureau of Special Education. The school district in Pennsylvania is recommended as the source of this data because it is there that a child is processed and deemed eligible for special education. Cooperative directives could be issued between the Department of Education and the Office of Mental Retardation of the Department of Public Welfare to affect the reporting of newly diagnosed children to the applicable local distribt by child name, age, address, parent name and handicapping condition. The chief school officer or his representative responsible for special education (e.g., a director of special education) in each local district could then be queried for individual children's names and records or for totals by age and handicapping condition of those children who are newly certified as needing special education.

If this query method is chosen, a simple matrix form, one by handicap and age, could be used by the local districts in a hash-mark fashion to record the children as they are reported to the district. (See Figure 2 for an example of such a form.) This form could then be forwarded to the state Bureau of Special Education at the end of the year.

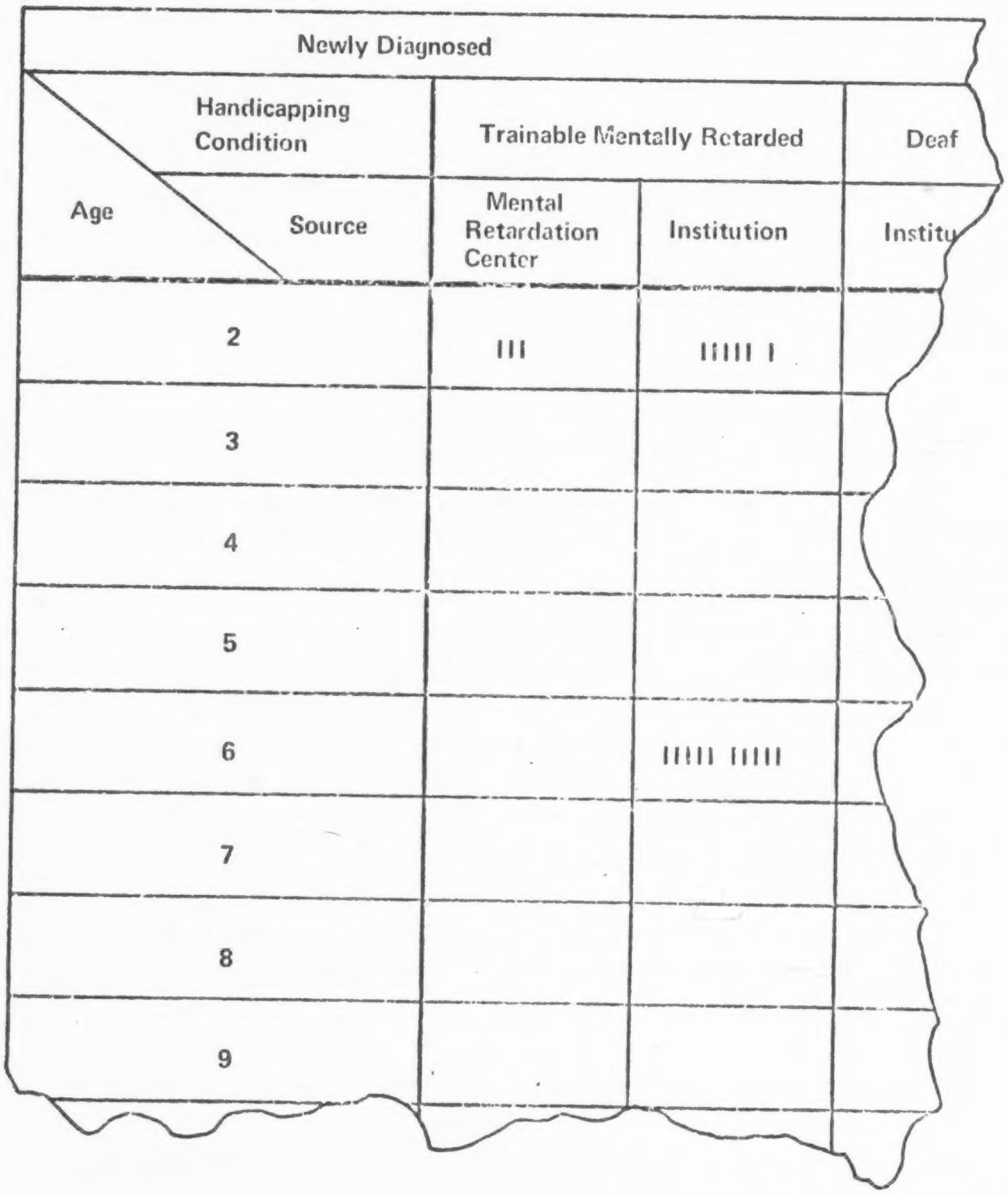
The foregoing methods for collecting data on the identified unserved handicapped child population and the newly diagnosed child population place the reporting burden on the local school district. Although this procedure requires considerable effort from the local superintendents, any other would greatly increase the possibility of double counting.

During the time that is required to develop reliable data on the unserved child population and the newly diagnosed handicapped child population the Bureau of Special Education may choose to utilize estimates of this population from past experience and published CEC articles. Using such prevalence rates is only an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run (not only for applying the model but for other state planning purposes), they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternative methods of validating these rates.

c. Develop a new form to capture intra-state transfer data among children served in public school special education programs within the state. Such data must also be tabulated according to the children's ages and specific handicapping conditions.

   Form PISE-9 could also be modified to obtain this same information from state-owned and state-aided schools.

d. Develop procedures and forms for obtaining attrition data from Pennsylvania public school special education



Newly Diagnosed			
Handicapping Condition	Trainable Mentally Retarded		Deaf
Age / Source	Mental Retardation Center	Institution	Institu
2	III	IIIII I	
3			
4			
5			
6		IIIII IIIII	
7			
8			
9			

FIGURE 2. EXAMPLE OF MATRIX FORM TO COLLECT LOCAL DISTRICT DATA ABOUT NEW ENTRANTS TO HANDICAPPED CHILD POPULATION AND EXAMPLE OF HASH-MARK ENTRIES

programs. This data should contain the reason for the attrition and be compiled according to the age and handicap of the attritees.

In this case also, form PISE-9 could be modified to obtain such data from state-owned and state-aided private schools.

e. Modify "Special Education Report" (form No. PIBE-284) in order to obtain name and single year of age data for pupils of all handicap groups in all types of classes, i.e., iterant, resource room, part-time, and full-time.

f. Send "Applications for Approval of Enrollment" (form No. PIBE-448) and the subsequent July and September updating forms to state-owned schools for handicapped children, if this is not already being done, in addition to the state-aided private schools.

The final recommendation that can be made with respect to model development and implementation concerns the responsibility for coordinating data collection among different local and state agencies and for processing the data, once a good information flow is established. It is recommended that the Bureau of Special Education assume this responsibility with the assistance of a consultant. (See the following section.)

If the priority committee on data processing were to assign a high priority to the proposed project, the Bureau of Management Information Systems would be the logical organizational unit to assume the responsibility for coordinating the data collection effort.

VIII. RESOURCE REQUIREMENTS—MANPOWER

It is estimated that approximately $2\frac{1}{2}$ man-months of effort by the Bureau of Special Education, 1 man-month for forms design, 2 man-months of systems analyst work and 1 man-month of programming would be necessary to develop the procedures for implementing the model, including coordinating information collecting activities with other state and local agencies over a 2-3 year period. In subsequent years, this effort might be reduced to 1 man-month of cumulative effort for maintenance of the system. It appears that technical support would have to be obtained by the Bureau of Special Education in order to develop and maintain the information Manpower Requirements Projection Model and conduct the necessary statistical analyses.

IX. PERSONS INTERVIEWED

The persons interviewed by the ORI (Leasco) representative, Mr. Jeffrey Koshel, during the week of October 13, 1969 were:

Dr. William F. Ohrtman	Director, Bureau of Special Education
Dr. Georga Soloyanis	Deputy Commissioner of Mental Retardation
Mr. Edward B. Aston	Coordinator, State-Aided and State-Owned Institutions
Mr. Richard H. McCarty	Administrative Assistant to Director of Special Education
Mr. Carl Urich	Federal Programs Coordinator, Bureau of Special Education

X. CURRENT REPORT FORMATS

Form PIBE-338, Annual Special Education Programs/Services Report

Form PIBE-284, Special Education Report

Form PIBE-398, Annual Budget—District Operated Programs and Services for Exceptional Children

Form PIBE-399, Anticipated Enrollments—District Operated Programs and Services for Exceptional Children

Form PISE-9-566, Annual Educational Report—State-Owned and State-Aided Schools

Form PIBE-488, Application for Approval of Enrollment

Form PIBE-488a, Recommendations for Children to Continue in Enrollment in Approved Schools (July)

Form PIBE-488b, Report of Enrollment of Children Recommended to Continue in Approved Schools (September)

Form PW 136-B1, Number of Patient-Care Employees in 9 State Schools and Hospitals

Public Schools

Commonwealth of Pennsylvania - Department of Public Instruction

ANNUAL SPECIAL EDUCATION PROGRAMS/SERVICES REPORT

PIBE-338 (4/69)

County 66 + Phil = ⑥⑦

School Year

INSTRUCTIONS: Prepared by each County Superintendent of Schools. Submit one copy to: Bureau of Special Education, Department of Public Instruction, Box 911, Harrisburg, Pa. 17126 by December 1. Information will consist of complete County and District totals for special education services as substantiated by Special Education Report PIBE-284. Use reverse side for remarks or explanations.

FULL-TIME PROGRAMS	COUNTY				DISTRICT				TOTAL COUNTY/DISTRICT			
	Teachers		Pupils		Teachers		Pupils		Teachers		Pupils	
	Elem.	Sec.	Elem.	Sec.	Elem.	Sec.	Elem.	Sec.	Elem.	Sec.	Elem.	Sec.
Mentally Retarded, Educable												
Mentally Retarded, Trainable												
Physically Handicapped												
Brain Injured												
Socially & Emotionally Disturbed												
Hearing Impaired												
Aphasic												
Visually Impaired												
Gifted and Talented												
Learning Dysfunction												
Educationally Retarded												
Detention												
Other (Specify)												
TOTALS												

(REPRODUCED FROM STATE FORM)

ITINERANT SERVICES ①	COUNTY				DISTRICT				TOTAL COUNTY/DISTRICT			
	Teachers		Pupils		Teachers		Pupils		Teachers		Pupils	
	Elem.	Sec.	Elem.	Sec.	Elem.	Sec.	Elem.	Sec.	Elem.	Sec.	Elem.	Sec.
Visually Impaired												
Hearing Impaired												
Speech and Hearing												
Speech Correction												
Gifted and Talented												
Other (Specify)												
TOTALS												

Signature - County Superintendent of Schools

Date

① Other types of programs not broken out – only "special class" definition used

Public Schools

Commonwealth of Pennsylvania - Department of Public Instruction

SPECIAL EDUCATION REPORT

SCHOOL YEAR ENDING 19 _____

PIBE-284 (1/69) (Formerly PISE-2)

☐ County Operated
☐ District Operated

INSTRUCTIONS: Complete one report for each teacher. Send to Bureau of Special Education, Department of Public Instruction, Box 911, Harrisburg, Pennsylvania 17126 on or before December 1. This report serves as a partial basis for approval of the special education programs in county or district. The criteria for the selection of pupils should conform to the regulations established by the State Board of Education for the operation of such programs.

LOCATION AND ADDRESS

Building

Street & Number

City

District

County

KIND OF PROGRAM - CHECK ONE BLOCK ONLY

Special Classes For: (No breakout of type of class)

☐ Mentally Retarded, Elem.
☐ Mentally Retarded, Secondary
☐ Mentally Retarded, Trainable
☐ Physically Handicapped
☐ Brain Injured
☐ Socially & Emotionally Maladjusted
☐ Non-English Speaking
☐ Hearing Impaired (Part-time)
☐ Hearing Impaired (Full-time)
☐ Partially Seeing
☐ Blind
☐ Gifted & Talented
☐ Other: (Specify)

Percentage of time pupils spend in classes other than special classes. _______________

NOTE: A copy of the teacher's class schedule must be attached for all **Mentally Retarded, Secondary Classes.**

Itinerant Programs For:

☐ Visually Impaired
☐ Hearing Impaired
☐ Speech & Hearing
☐ Speech Correction
☐ Gifted
☐ Other: (Specify)

PERSONNEL INFORMATION

Name of Teacher - First, Middle, Last (If MRS. include maiden name)

☐ Regularly Appointed
☐ Substitute

If **SUBSTITUTE**, Superintendent will enter the name of regularly appointed teacher.

Name of Regularly Appointed Teacher - First, Middle, Last (If MRS. include maiden name)

Type of Leave or Vacancy

(REPRODUCED FROM STATE FORM)

TEACHER'S CERTIFICATION - Give exact wording Degree – Missing

Basic Certification

Annual Salary
$

Special Education Certification

Certificate Number

Date Issued

Teacher Aide (If any)

Annual Salary
$

PUPIL INFORMATION

Names of Psychologists who examined pupils

No. Pupils on Active Roll

Complete this block **ONLY** when reporting data for Itinerant Speech & Hearing and Speech Correction programs. **DO NOT** complete reverse side. For **ALL OTHERS**, complete reverse side and omit this block.

	Number		Number		Number
Articulation Disorders		Stuttering		Language Dysfunctions	
Cerebral Palsied Disorders		Voice Disorders		Others:	
Cleft Palate Speech		Hearing Impaired			

Frequency of Itinerant Service

☐ Twice Weekly
☐ Weekly
☐ Bi-weekly
☐ Block

Signature (County/District Superintendent) - delete one

Date

PUPIL INFORMATION FOR ALL FULL-TIME CLASSES

Names of Pupils Enrolled	Pupil's District of Residence	C. A. as of 9/1	Yrs. in Special Edu.	Most Recent Psychological Evaluation Data					Reading Grade Level	Pertinent Data *
				Name of Test	Date of Test	C. A.	M. A.	I. Q.		
1.										
2.										
3.										
4.										
5.										
6.										
7.										
8.										
9.										
10.										
11.										
12.										
13.										
14.										
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17.										
18.										
19.										
20.										
21.										
22.										
23.										
24.										
25.										
26.										
27.										
28.										
29.										
30.										
31.										
32.										

Name(s) of Group Test(s) Used

Date Administered (Month & Year)

---

* Pertinent Data Required for:

1. Classes for Mentally Retarded - Justification of placement when pupil's IQ is above State standards.
2. Classes for Physically Handicapped - Diagnosis of handicapping condition for each pupil.
3. Classes for Visually Impaired - Visual acuity with correction, each eye separately.
4. Classes for Hearing Impaired - Hearing level in better ear (average 500, 1000 and 2000 Hz). Date of last audiologic evaluation.

Indirect Personnel (Public Schools)

Commonwealth of Pennsylvania - Department of Public Instruction

ANNUAL BUDGET **DISTRICT OPERATED PROGRAMS AND SERVICES** **FOR EXCEPTIONAL CHILDREN** **SCHOOL YEAR** ______ PIBE-398 (4/69)	Date	To Be Checked by County Office Do programs appear in Approved County Plan? ☐ YES ☐ NO
School District		County

INSTRUCTIONS: In accordance with Section 2509 of the Public School Code, school districts planning to conduct special education programs or services for exceptional children shall submit an annual budget to the Department of Public Instruction for prior review and approval before July 1 to establish a maximum instruction cost per pupil for reimbursement purposes. Three (3) copies will be submitted to the Bureau of Special Education, Department of Public Instruction, Box 911, Harrisburg, Pennsylvania 17126, thru the County Superintendent of Schools. (One (1) copy will be retained by county office.) Include for each item only the portion of the costs which is applicable to special education. Salary items must be justified by attaching a listing of employes, positions and respective salaries, and a listing substantiating all other expenses. If prorations are used, specify the percent applicable to the item of special education costs and method used to determine such prorations.

1. INSTRUCTION COSTS OF PREAPPROVED REINBURSABLE SPECIAL EDUCATION PROGRAMS AND SERVICES.	Expend. Account	ELEMENTARY	SECONDARY
ADMINISTRATION Supplies	0121		
INSTRUCTION Salaries, Principals, Assistants	0211		
Salaries, Supervisors, Assistants	0212		
Salaries, Teachers	0213		
Salaries, Librarians	0214		
Salaries, Other Instructional Staff			
Salaries, Instructional Assistants			
Salaries, Secretarial, Clerical, Other Personnel	0219		
Textbooks	0221		
Teaching Supplies	0222		
Audiovisual Materials	0224		
Other Materials & Supplies for Instruction	0229		
Contracted Services for Instruction	0250		
PUPIL PERSONNEL SERVICES Salaries, Directors, Coordinators, Supervisors	0311		
Salaries, Guidance and Psychological Personnel	0313		
Salaries, Clerical and Other Classified Personnel	0319		
OPERATION AND MAINTENANCE OF PLANT Operation and Maintenance Supplies	0621		
FIXED CHARGES (ABOVE EMPLOYES ONLY) School System Contributions to Employe Retirement	0831		
School System Share of Social Security Taxes	0832		
TOTAL BUDGETED REIMBURSABLE INSTRUCTION COSTS	TOTAL:		
Anticipated Equivalent Full-Time ADM in Special Classes			
Budgeted Special Class Instruction Cost per Pupil in Equivalent Full-Time ADM			
Projected Total Enrollment in Special Classes (Total: PIBE-399)			
2. PUPIL TRANSPORTATION SERVICES	0500		

(REPRODUCED FROM STATE FORM)

Signature - Superintendent	Signature - Secretary of Board

One-Yr. Projections

Commonwealth of Pennsylvania - Department of Public Instruction

ANTICIPATED ENROLLMENTS

DISTRICT-OPERATED PROGRAMS AND SERVICES FOR EXCEPTIONAL CHILDREN

PIBE-399 (4/69)

School District

School Year

County

INSTRUCTIONS: Data contained herein will be used to support the computation of preapproved reimbursable instruction costs for special education programs and services. Submit as Attachment to Annual Budget - District-Operated Programs and Services for Exceptional Children, PIBE-398. Do not include county operated services or homebound instruction. Full reimbursement requires programs and services be in conformity with regulations of the State Board of Education and appear in approved county plan.

PROGRAMS/SERVICES	CURRENT ENROLLMENTS								ANTICIPATED ENROLLMENTS							
	FULL-TIME				ITINERANT				FULL-TIME				ITINERANT			
	TEACHERS		PUPILS		TEACHERS		PUPILS		TEACHERS		PUPILS		TEACHERS		PUPILS	
	Elem.	Sec.	Elem.	Sec.	Elem.	Sec.	Elem.	Sec.	Elem.	Sec.	Elem.	Sec.	Elem.	Sec.	Elem.	Sec.
Mentally Retarded, Educable																
Mentally Retarded, Trainable																
Physically Handicapped																
Brain Injured																
Socially & Emotionally Disturbed																
Hearing Impaired																
Aphasic																
Visually Impaired																
Gifted and Talented																
Learning Dysfunction																
Educationally Retarded																
Detention																
Other																
TOTALS																

(REPRODUCED FROM STATE FORM)

Name of School

Boro or City

County

Commonwealth of Pennsylvania
DEPARTMENT OF PUBLIC INSTRUCTION
Harrisburg

ANNUAL EDUCATIONAL REPORT

State-Owned and State-Aided Schools

Deaf & Hard of Hearing of Non-Collegiate Grade — Private — residential or day facility

FOR THE SCHOOL YEAR 19 -19

Make 2 copies: One for the School and one for the Department of Public Instruction.
This report is required under Section 2811 of the School Laws of Pennsylvania, as amended.

Date of Organization Date of Charter Charter Issued by Court or Legislature
Purpose Named in Charter
How is Title Held
Officers— President (Salary $) Treasurer (Salary $)
Secretary (Salary $) Superintendent (Salary $)

PHYSICAL EQUIPMENT

No. of Acres: Campus Playground Farm Total

Kinds of Buildings	Number	Estimated Values	
		Land	$
		Buildings	$
		Furniture & Fixtures, etc.	$
		Machinery & Equipment	$
		Land Improvements	$
		Library	$
		Small Tools & Equipment	$
			$
			$
			$
Total		Total Estimated Value of Property	$

(REPRODUCED FROM STATE FORM)

PERSONNEL

Staff	Part Time M	Part Time F	Full Time M	Full Time F	Total M	Total F
No. of Administrative Officers	} Indirect Staff					
No. of Supervising Officers						
No. of Instructors (academic)						
No. of Instructors (vocational)						
No. of Instructors (special)						
No. of Physicians	} Indirect Staff					
No. of Nurses						
No. of Housemothers & Assts.						
No. of other employes						
Total						
Capacity of School (other than employes)						
No. on roll attending school						
No. from Pennsylvania						
No. from other states						
No. of private pupils						

Students	M	F	Total
No. enrolled June 1, 19			
No. admitted during the year			
Total			
No. graduated			
No. sent home because of too much vision	} Attrition		
No. sent home because of too much hearing			
No. sent home as uneducable			
No. transferred to other schools			
No. removed by parents or guardians or who failed to return			
Otherwise discharged			
Died			
Total discharge			
Remaining in school May 31, 19			

PISE-9
5-66

D38-18

(Private)

Commonwealth of Pennsylvania - Department of Public Instruction

APPLICATION FOR APPROVAL OF ENROLLMENT

Date of Application

PIBE-448 (6/69) formerly PIAD-9

NOTE: See complete instructions on reverse side before completing application.

SECTION I (For Completion By Approved School)

Name of School

Address

The above-named school submits application under the provisions of Sections 1376-1377 of the School Laws of Pennsylvania 1949, as amended, for the approval of enrollment with reimbursement of the following child:

Name of Child [redacted]

Date of Birth

Sex

Name of Father (Guardian)

Name of Mother

(REPRODUCED FROM STATE FORM)

Home Address

County

Application for:

1. Initial Enrollment: (effective date) __________
2. Reapproval of Enrollment: ☐ SIX years of age ☐ Change in resident school district
3. ☐ Day Pupil ☐ Resident Pupil

Reports Attached (check):

☐ Blind (ophthalmologic)
☐ Deaf (otologic & audiologic)
☐ Socially or Emotionally Disturbed (psychiatric)
☐ Cerebral Palsied (medical)
☐ Brain Injured (neurologic)
☐ Muscular Dystrophied (medical)
☐ Psychological (all applicants)
☐ Educational (school reports on all age 6 or older)

SECTION II (For Completion by School District)

1. Acknowledgment of Legal School District of Residence:

I ☐ acknowledge ☐ disclaim legal residence of the above named child to be ____________________

School District, of which I am Secretary of the School Board. This child has been in legal residence in the above district since ____________________

Signature of Secretary Date

2. Recommendation of District Director or County Supervisor of Special Education:

I have investigated the educational needs of this child and ☐ recommend ☐ do not recommend placement in the school stated above.

Signature Date

3. Recommendation of Superintendent:

I ☐ recommend ☐ do not recommend this child for placement in the school stated above because public school programs or services are:

Signature of Superintendent Date

SECTION III (FOR DPI USE ONLY)

☐ Approved ☐ Not Approved (See Attached)

☐ Conditionally Approved:

Date of Enrollment:

Date of Discharge:

Reason Discharged:

Referral:

Signature of Bureau Director Date

D38-19

Update (Private)

Commonwealth of Pennsylvania - Department of Public Instruction

RECOMMENDATIONS FOR CHILDREN TO CONTINUE IN ENROLLMENT IN APPROVED SCHOOLS

PIBE-448a (6/69) formerly PISE-9a

INSTRUCTIONS: Submit three (3) copies to the Bureau of Special Education, Department of Public Instruction, Box 911, Harrisburg, Pennsylvania 17126 on or before July 1.

Name of School

Address

This school, approved under the provisions of Sections 1376 and 1377 of the School Laws of Pennsylvania, 1949, as amended, recommends the following children to be continued in enrollment with State or State and local school district reimbursement for the fiscal year 19____ - 19____.

The required evaluations have been done and pupil progress reports have been forwarded to the administrator of the school district of residence and to the superior of special education.

List alphabetically by county, by school district, by pupil's surname, residing in each school district.		Date of Birth	Day or Resident Pupil		No. of Years Attended
Name of Pupil	County and School District of Residence		D	R	

(REPRODUCED FROM STATE FORM)

Commonwealth of Pennsylvania - Department of Public Instruction Update (Private)

REPORT OF ENROLLMENT OF CHILDREN RECOMMENDED TO CONTINUE IN APPROVED SCHOOLS

PIBE-448b (6/69) formerly PISE-9b

INSTRUCTIONS: Submit three (3) copies to the Bureau of Special Education, Department of Public Instruction, Box 911, Harrisburg, Pennsylvania 17126 on or before September 15.

Name of School	Address

This school, approved under the provisions of Sections 1376 and 1377 of the School Laws of Pennsylvania, 1949, as amended, reports the enrollment of the children who were recommended on Form PIBE-448a, submitted July 1, 19____ , to continue in this program for the school year 19____ - 19____, with State or State and local school district reimbursement. Except for pupils indicated, local school districts have concurred with the recommendation for continuance. (Do not list new pupils.)

List alphabetically by county, by school district, by pupil's surname residing in each school district.		Date of Birth	Day or Resident Pupil		No. of Years Attended
Name of Pupil	County and School District of Residence				
			D	R	

(REPRODUCED FROM STATE FORM)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF PUBLIC WELFARE
PW 180-31

NUMBER OF PATIENT-CARE EMPLOYEES IN 9 STATE SCHOOLS AND HOSPITALS AS OF JANUARY 31, 1969
AND A COMPARISON WITH QUOTAS BASED ON 1964 STANDARDS OF THE AMERICAN ASSOCIATION ON MENTAL DEFICIENCY, BY POSITION AND BY SCHOOL

Personnel

(REPRODUCED FROM STATE FORM)

Position	Total	Cresson	Ebensburg	Hamburg	Laurelton	Pennhurst	Polk	Selinsgrove	Western	White Haven
Physicians										
Number	53	2	4	6	2	11	5	10	7	6
AAMD Quota	79	6	7	6	5	14	17	11	7	6
% of Quota	67	33	57	100	40	79	29	91	100	100
Psychologists 2/										
Number	41	1	1	2	8	8	4	8	6	3
AAMD Quota	83	6	6	5	8	14	17	14	7	6
% of Quota	49	17	17	40	100	57	24	57	86	50
Social Workers										
Number	74	6	5	5	10	13	2	9	13	11
AAMD Quota	168	10	14	12	15	32	38	24	12	11
% of Quota	44	60	36	42	67	41	5	38	108	100
Teachers 3/										
Number	106	2	6	1	17	18	23	13	14	12
AAMD Quota	159	17	25	[illegible]	19	17	18	11	22	11
% of Quota	67	12	24	[illegible]	89	106	128	118	64	109
Occupational and Industrial Therapists										
Number	60	[illegible]	[illegible]	4	11	12	4	6	11	6
AAMD Quota	179	[illegible]	15	13	9	33	41	25	10	13
% of Quota	35	[illegible]	7	31	122	36	10	24	110	46
OT and IT Assistants										
Number	[illegible]	12	4	-	7	6	25	8	17	22
AAMD Quota	[illegible]	18	26	22	18	64	78	50	16	22
% of Quota	32	67	15	-	39	9	32	16	106	100
Therapeutic Recreators										
Number	45	5	5	1	9	3	5	6	7	4
AAMD Quota	79	5	6	5	7	14	17	13	6	6
% of Quota	57	100	83	20	129	21	29	46	117	67
Physical Therapists										
Number	14	1	3	3	-	2	2	-	2	1
AAMD Quota	55	5	4	6	1	10	14	8	2	5
% of Quota	25	20	75	50	-	20	14	-	100	20
Physical Therapy Assistants										
Number	21	-	12	2	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AAMD Quota	[illegible]	10	9	12	2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

D38-22

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS
PENNSYLVANIA

DATA ELEMENTS			PUBLIC SCHOOLS			STATE-OWNED SPECIAL SCHOOLS			MR SCHOOL/HOSPITALS AND MR WORKSHOPS			STATE-AIDED PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Available for full-time classes for MR, visually, hearing, and physically handicapped	Modification of existing "Special Education Report"	County/district superintendent of schools	Not available at state level	Existing state-aided forms can be utilized	School superintendent	Currently available at state level	Not applicable	Superintendents of institutions and directors of workshops (OMR)	Currently available at state level
		HANDICAPPING CONDITION										
		EDUCATION PROGRAM				Available	Not applicable					
	ON WAITING LIST	AGE	Notlavailable	New reporting form required	County/district superintendent of schools	Not available	New reporting form required	School superintendent	Currently available	Not applicable	Superintendents of institutions and directors of workshops (OMR)	New reporting form needed
		HANDICAPPING CONDITION										
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not available	New form must be designed and sent to all local school district superintendents to capture this data item. Joint directives will be needed in order that all qualified diagnosticians in public employment send this information to the superintendents.								
		HANDICAPPING CONDITION										
	INTRA-STATE TRANSFERS	AGE	Not available	New reporting form needed	County/district superintendent of schools	Not available	New reporting form needed	School superintendent	Currently available	Not applicable	Superintendents of institutions and directors of workshops (OMR)	New reporting form needed
		HANDICAPPING CONDITION										
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Not currently available	New reporting form needed	County/district superintendent of schools	Not currently available	Modification of existing reporting form	School superintendent	Currently available	Not applicable	Superintendents of institutions and directors of workshops (OMR)	Modification of existing PIBE form
		HANDICAPPING CONDITION										
		REASON										
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Available	Not applicable	Office of Research and Statistics				Available	Not applicable	Office of MR	
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Available	Not applicable	Bureau of Special Education							
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Available for all groups	Not applicable	Bureau of Special Education	Available	Not applicable	Bureau of Special Education	Available	Not applicable	Superintendents and directors	Available
		EDUCATION PROGRAM										
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Available	Not applicable	County/district superintendent	Available	Not applicable	School superintendent	Available	Not applicable	Superintendents and directors	Available

RHODE ISLAND STATE ANALYSIS REPORT

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IX. PERSONS INTERVIEWED D39-20

The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

RHODE ISLAND STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of this Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Rhode Island, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 3 at the end of this report.

II. SUMMARY

Rhode Island is in a position to initiate the information flow necessary to provide the data required for the Manpower Requirements Projection Model utilization. A data flow procedure already exists and an automated data processing system is currently under development.

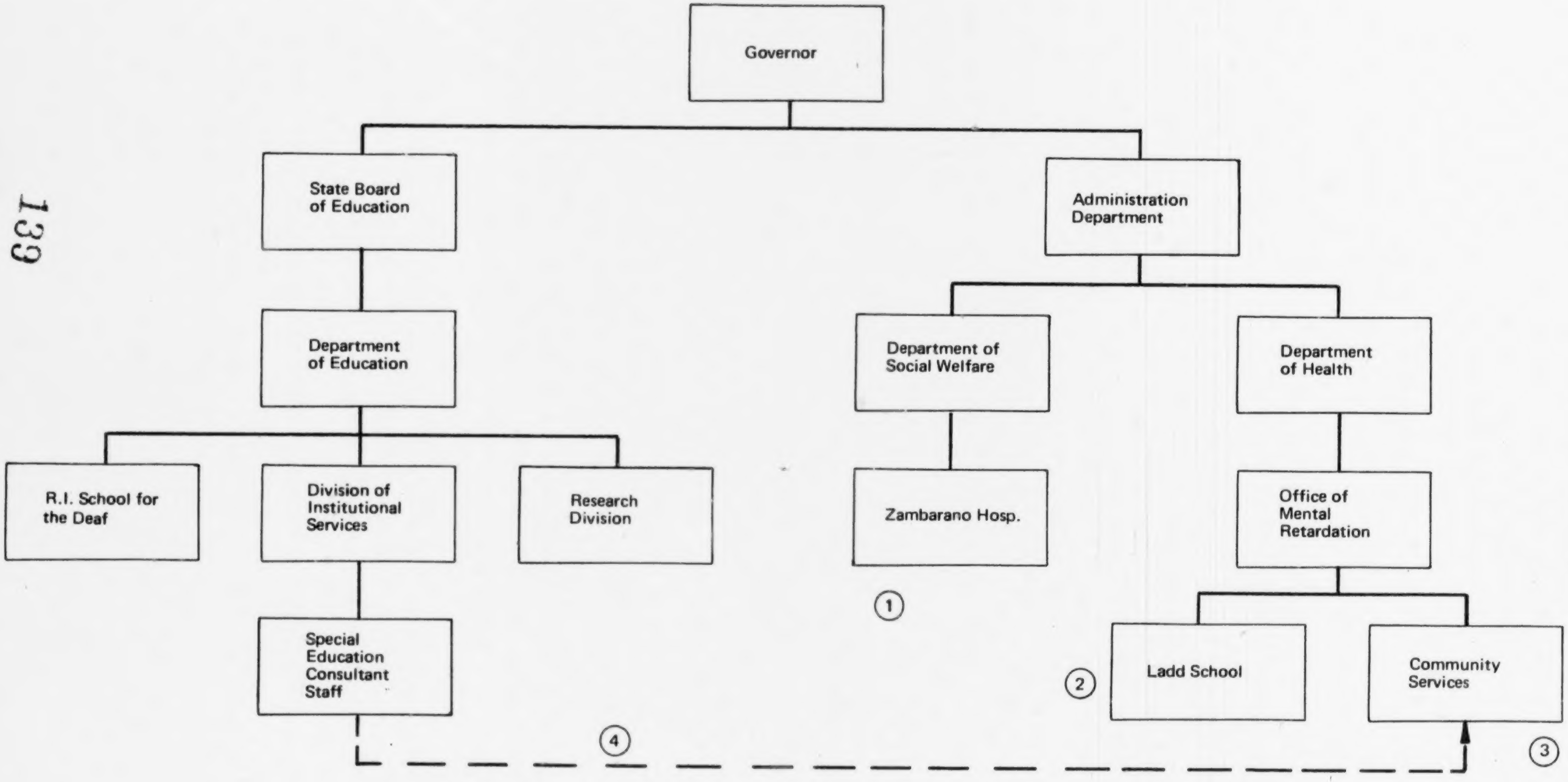
Computer capacity and automated data processing (ADP) technical support are not available through in-house state facilities. However, outside computer time can be rented and a contract with a consulting firm will provide the necessary technical assistance. The introduction of model data element requirements should not be difficult because of the developmental state of the ADP system. The proposed information system should result in successive improvements in the completeness and accuracy of the data elements over time, with validity being achieved within a few annual data cycles.

Many of the data elements necessary for the special education Manpower Requirements Projection Model are already flowing from local agencies to state agencies, and the remaining requirements are capable of development within the existing information flow process. The local school districts report some of the special education information to the State Division of Institutional Services (special education consultants) on already existing forms. Additional forms will be required for some data elements (enrollments by single year of age and movement of children within the handicapped child population). Other state agencies having responsibilities to handicapped children seem willing to cooperate in the lateral transmission of data at the state level.

Modified prevalence rates are used to estimate the total handicapped child population. It is recommended that procedures be initiated for accumulating data to be used to improve the accuracy of these rates.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The responsibility for the education of handicapped children in Rhode Island is illustrated in the annotated informal organization chart shown in Figure 1. Only those organizations having educational or informational service functions for handicapped children have been shown. It is not intended to include all of the many other functions which each agency performs.


Governor
State Board of Education
Administration Department
Department of Education
Department of Social Welfare
Department of Health
R.I. School for the Deaf
Division of Institutional Services
Research Division
Zambarano Hosp.
Office of Mental Retardation
①
Special Education Consultant Staff
②
Ladd School
Community Services
④
③

① Hospital for Mentally Retarded.

② State Institution (school and hospital) for mentally retarded of all ages.

③ Regional centers serve all ages of severely mentally retarded and conduct child development programs.

④ Public schools purchase service for TMR (ages 16-21).

FIGURE 1. RESPONSIBILITIES FOR SPECIAL EDUCATION IN RHODE ISLAND

The Department of Education, through the Division of Instructional Services, is the principal special education agency because the public school system falls within its jurisdiction. Its staff of special education consultants provides curriculum consulting services to local school system special education programs and administers the Title VI Programs.

The operation of the Rhode Island School for the Deaf is another responsibility of the Department of Education. This school educates the majority of the state's enrolled deaf children.

The Department of Health shares the responsibility for educating and training the mentally retarded with the Department of Education. The Office of Mental Retardation (OMR) operates the Ladd School (school and hospital) for mentally retarded of all ages. Another function of the OMR is the operation of regional community centers which conduct child development programs for the severely mentally retarded. The Division of Instructional Services purchases services for some of the TMR children in the 16 to 21 year age range, where public school facilities are not available. The Department of Social Welfare operates the Zambarano Hospital for the Mentally Retarded. The assignment of a child to the Ladd School or the Zambarano Hospital is contingent upon the circumstances that placed the child within the jurisdiction of either the Social Welfare or Health Department. Both the Division of Instructional Services and the Zambarano Hospital purchase services for the severely emotionally disturbed from private in-state and out-of-state facilities.

The handicap groups and the sources of educational programs available are summarized in Table 1.

The research division, while bearing no direct responsibility for the education of the handicapped, is responsible for providing forms design and data processing support for the Department of Education functions. For this reason it has a key responsibility for the accomplishment of information flow objectives.

IV. DATA ELEMENT EVALUATION

Some specific data elements are necessary to the use of the projection model. The information which these data elements provide may also be very useful to the Division of Instructional Services, and particularly to the special education consultants, for operational analysis.

The data available to the special education consultants is currently derived from a packet of special education for handicapped children program report forms. These forms are completed by the Local Education Agency (LEA) in the fall of each year and forwarded to the Division of Instructional Services special education consultants. They contain information and data on teaching, administrative, and other support personnel; on enrollment in varying levels of detail; and on funding sources. Not all of the data elements required for Manpower Requirements Projection Model usage are currently collected however.

TABLE 1

Mentally Retarded	
TMR, Severe MR	Public Residential Special Classes Private Special Day Schools
EMR	Day Special Classes in a Regular Public School Itinerant Teachers
Emotionally Handicapped	Private Residential Special Classes Private Special Schools (pre-school) Public School Resource Rooms Day Special Classes in Regular Public Schools Itinerant Teachers
Neurologically Impaired (Includes Asphasic)	Private Special Schools Public School Resource Rooms and Special Classes Itinerant Teachers
Physically Handicapped (Includes Orthopedically Handicapped)	Private Special Schools Itinerant Teaching Special Classes in Regular Public Schools
Visually Handicapped (Blind and Partially Sighted)	Private Special Schools Itinerant Teachers Special Classes in Regular Public Schools
Speech Handicapped	Itinerant Teachers
Deaf and Hard of Hearing	Public Residential Special Classes and Special Schools Resource Rooms Itinerant Teachers

Number of Children Identified As Needing Special Education

The identification of the child population requiring special education services is necessary for the determination of actual special education manpower requirements. This population is divided into two categories — those enrolled and presently receiving services, and those waiting to receive services.

Enrolled. The present data collection format, as shown in Figure 2, provides a count of children enrolled, by handicapping condition and special education program type (special education class, resource room, special education classes in a regional school, all classes in school are for special education). However it does not provide for the collection of this information by single year of age for the public school classes. Reporting by individual student name for those enrolled in the public school system's special education programs is apparently not a current requirement.

Pupils receiving special education services in nonpublic day school programs, in nonpublic residential institutions, and public schools in other communities are reported by individual name, age, and handicapping condition (Figure 3). This detail of information is associated with the record-keeping required for financial reimbursement.

Enrollment data required for model input, although not presently compiled, is available at the state institutions (Rhode Island School for the Deaf, Zambarano Hospital, and the Ladd School).

In order to collect the level of enrollment data element detail required for model application and at the same time provide a format that could be used for reporting public school, nonpublic school, and state institutional information, a sample summary format, shown in Figure 4, has been prepared. This form can be prepared at the classroom level, school or institutional level, or at the LEA level, depending upon the information available at each local level.

The header information is self-explanatory except for the "Special Education Program Type" entry. This entry refers to the classroom categories as listed in Table 2. Each type is coded for ease of entry on the form and for keypunching for input to an ADP system. Table 2 would be printed on the reverse side of the form.

The enrollment categories refer to the pupil supply source and are ultimately useful in the determination of annual incidence rates.

The form provides for the entry and summarization of enrollments by single year of age, as illustrated in the sample entries in Figure 4. Because

Mentally Handicapped (Educable) - Classes and Resource Programs

* S/R	NAME OF SPECIAL EDUCATION TEACHER AND AIDE	SCHOOL	** INT	 SEG	NUMBER OF PUPILS FROM LOCAL COMMUNITY	 FROM OTHER COMMUNITIES	 CHRON. AG RANGE
			TOTAL		A)	B)	

* Indicate by S or R whether teacher has special education class or resource class.

** Indicate by (x) whether class is integrated, "INT" (Special Education class is located in a school which also houses normal children), or segregated, "SEG" (All classes in that school are special education).

C) Number of children served through non-public day schools................. __________

D) Number of children served through non-public residential schools......... __________

E) Number of children for whom tuition is paid to other communities......... __________

HAND-BOOK II NO.	EXPENDITURE ACCOUNT	% OF TIME^x	LOCAL FUNDS^y	FEDERAL FUNDS	TOTAL
100	Administration (Salaries)				
100	Administration (Supplies)	X			
200	Instruction (Salaries)				
200	Instruction (Supplies)	X			
300	Attendance Services				
400	School Physician				
400	School Dentist				
400	School Nurse				
400	Speech Therapy				
400	Hearing Therapy				
400	Others (Specify)				
400					
400					
400					
500	Pupil Transportation Services	X			
600	Operation of Plant	X			
700	Maintenance of Plant	X			
800	Fixed Charges	X			
900	Food Services	X			
1000	Student Body Activities	X			
1100	Community Services	X			
1200	Equipment	X			
1220c	Remodeling	X			
1400	Tuition	X			
	TOTAL				F)

(REPRODUCED FROM STATE FORM)

x Percentage of time devoted to Mentally Handicapped (Educable) Program.

y Under Local Funds include monies provided by State through Sections 4 and 5, Chapter 160, as amended, State Assistance.

Per Pupil Cost for Mentally Handicapped (Educable) Program
(F divided by sum of A,C,D,E from above. Do not
include pupils listed in line B). $

FIGURE 2. PUBLIC SCHOOL ENROLLMENT DATA

D39-7

Mentally Handicapped (Educable) Program - Supplementary Information

PUPILS ATTENDING NON-PUBLIC DAY SCHOOL PROGRAMS		
PUPIL'S NAME	AGE*	NAME AND LOCATION OF SCHOOL

PUPILS ATTENDING NON-PUBLIC RESIDENTIAL INSTITUTIONS		
PUPIL'S NAME	AGE*	NAME AND LOCATION OF FACILITY

(REPRODUCED FROM STATE FORM)

* As of September 1.

FIGURE 3. NONPUBLIC SCHOOL ENROLLMENT DATA

Date Oct 1, 1970		School Bristol H. S.	
Handicap Condition Mentally Handicapped (Educable)		Location Bristol	
	Teachers Name M. Jones		Aides Name J. Smith

Special Education Program Type Code ______

Enrollment Category	Age																Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Continue in Program From Last Year											8						8
New Enrollee or Interstate Transfer										1	1						2
Intrastate Transfer From Another LEA												1	2				3
Total										1	9	1	2				13

Special Education Program Type Code ______

Enrollment Category	Age																Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Continue in Program From Last Year																	
New Enrollee or Interstate Transfer																	
Intrastate Transfer From Another LEA																	
Total																	

Special Education Program Type Code ______

Enrollment Category	Age																Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Continue in Program From Last Year																	
New Enrollee or Interstate Transfer																	
Intrastate Transfer From Another LEA																	
Total																	

FIGURE 4. SPECIAL EDUCATION ENROLLMENT SUMMARY REPORT

TABLE 2

SPECIAL EDUCATION PROGRAM TYPE CODES

Special Education Program Type	Public	School Type Nonpublic	State Institution
Students in residence	P-1	N-1	S-1
Day school, all classes special education	P-2	N-2	S-2
Special education classes in regular school	P-3	-	-
Resource room class	P-4	N-4	S-4
Itinerant	P-5	-	S-5
Other (explain)	P-6	N-6	S-6

it contains no individual child identification, this form can be forwarded from the local level to the state data collection agency.

Waiting List. The regulations pertaining to the education of handicapped children in Rhode Island are contained in "Regulations Education of Handicapped Children," approved December 19, 1963. These regulations mandate the conditions under which special education classes will be initiated. This means that when a child has been identified as needing special education services, the community is responsible for providing these services. With a shortage of funds, qualified personnel, and facilities, many communities sidestep the regulations by not "identifying" a handicapped child. Diagnosis frequently takes place only when the services are available for educating the child. As a result of this dilemma, there is no formal waiting list established, and the unserved handicapped child population remains unidentified.

The special education consultants use Cruickshank's figures for estimating the unserved child population. Those rates are applied to the total child population and the difference between these figures and the handicapped child enrollment represents Rhode Island's estimate of its unserved child population.

Using prevalence rates is an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternative methods of validating these rates.

Number of Children Moving Into/Out of Identified Handicapped Child Population

The movement of children within the handicapped child population needs to be traced to determine the effects of annual incidence, transfer, and attrition on the service required. Currently no data is collected or accumulated which will provide the necessary information.

Newly Diagnosed. Because of the aforementioned problems associated with the diagnosis and identification of handicapped children, new enrollees to special education are essentially of the newly diagnosed, on the basis that diagnosis is tantamount to enrollment. The Enrollment Category, "New Enrollee . . .", therefore translates to newly diagnosed. Should conditions change in Rhode Island to where children are diagnosed and identified, even though there is no service available to them and they must be put on a waiting list, a similar procedure can be used for recording waiting list candidates.

Intra-State Transfers. Transfers within the state of children receiving special education services, while they do not change the state's total handicapped child population, should be accounted for separately. This will prevent a transfer from one LEA from being counted as a new enrollee in another LEA, thus creating an error in annual incidence count. This is the purpose of Enrollment Category "Intrastate Transfer From Another LEA" and Attrition Category "Intrastate Transfer To Another LEA". An analysis of transfers could also reveal the trend of movement according to the quality of special education services offered by various localities.

Attritions. A procedure for obtaining a count of the identified handicapped child population must also include the deductions from the population. The form shown in Figure 5 contains space for summarizing the attrition by age, handicapping condition, and reason, either by class (referring to the previous year's enrollment record) or by LEA, depending on the reporting level procedures decided upon. The state may want to list additional causes for attrition for more detailed analysis.

Yearly Projections of Child Population, By Age

A yearly projection of the general child population, by single year of age, will provide the basis for incremental annual planning. The application of incidence rates, when validated, will establish the total handicapped child population. The single year of age requirement is necessary in order to advance the quantity of children from one age to the next.

A projection presently exists for the general child population to the year 2000 by 5-year increments (1970, 1975, 1980, etc.) by 5-year age brackets (0-5, 6-10, etc.).

Data Used To Simulate Special Education Requirements

The Manpower Requirements Projection Model has the capability of simulating manpower requirements based upon selected variations of input data. Two such data elements are education program mix trends and personnel/pupil contact ratios. A simulated change in the education program mix (for example, returning blind and deaf children to regular classes supplemented by resource room work instead of special classes) can be analyzed for its effect on manpower requirements. A proposed change in teaching technology that could affect the teacher/pupil contact ratio can be simulated to determine its effect on manpower requirements.

Enrollment records for past years are available at state level for interpretation of enrollment trends. Personnel/pupil contact ratios are established by state regulations and have not been changed since 1963. A check on the actual ratio can be accomplished through information currently submitted on the form shown in Figure 2. An analysis of this information would reveal any trend away from the officially prescribed ratios.

Date	Local Education Agency	Location

Handicap Condition ____________________

Attrition Categories	Age																Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Returned to Regular Education Procedure																	
Intrastate Transfer to Another LEA																	
Mortality																	
Moved out of State																	
Other (Dropout, Graduation, etc.)																	
Total																	

Handicap Condition ____________________

Attrition Categories	Age																Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Returned to Regular Education Procedure																	
Intrastate Transfer to Another LEA																	
Mortality																	
Moved out of State																	
Other (Dropout, Graduation, etc.)																	
Total																	

FIGURE 5. SPECIAL EDUCATION ATTRITION SUMMARY REPORT

Employment By Special Education Personnel Types

The information flow necessary to determine the numbers and types of special education personnel employed by the Department of Special Education is already in existence. The form shown in Figure 2 (and similar forms for other handicap programs) lists the classroom personnel (teachers, aides, etc.). The form shown in Figure 6 lists special education administrative personnel and clinical personnel types (psychologists, speech and hearing therapists, etc.). The classroom personnel data is not currently aggregated; however, the other personnel types are manually tabulated.

V. PROCESSING POTENTIAL

Rhode Island has a central data processing agency which is supposed to provide data processing services and support to the various state agencies. The work load is so heavy, however, that there is no capacity for any work not connected with revenue production.

At the time of the ORI state survey, all data was manually aggregated and special education reports were manually prepared. There was no effort directed toward the development of an automated data processing system. It has since been determined by Messrs. F. Conley and C. Harrington, Special Education Consultants, that data processing support can be obtained, through the cooperation of the Research Division, and a high priority effort is underway to implement an automated data processing system.[1]

Hardware

The state data center has adequate types of hardware (IBM 360-30 with 64K memory, 4 tape drives, and 5 discs), except that it has no FORTRAN compiler. As previously stated, however, the equipment and staff of this facility are not available to special education.

The Research Division does have the authority, provided funds are available, to rent required computer facilities, so hardware capability can be obtained to satisfy model requirements.

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[1] Between the time of the survey visit (October 1969) and the finalization of this report (March 1970), the Rhode Island Special Education staff has been very active in initiating the redesign of its special education information system. The employment of automated data processing techniques is one of their major objectives. They have, in fact, advised ORI that the groun work has been completed and that full scale implementation is in process.

DEPARTMENT OF EDUCATION
DIVISION OF INSTRUCTIONAL SERVICES
SECTION ON SPECIAL EDUCATION

SPECIAL EDUCATION FOR HANDICAPPED CHILDREN PROGRAM REPORT FORM

City or Town ______________________ School Year __________

Report submitted by (signed) ______________________________________

A. SPECIAL EDUCATION ADMINISTRATIVE PERSONNEL (Supervisors, Consultants, Coordinators, Directors, Special School Principals, etc.)

(REPRODUCED FROM STATE FORM)

Name	Title	Present Salary	Full or Part Time

B. OTHER PERSONNEL (Psychologists, Speech and Hearing Therapists, Homebound and Hospitalized Teachers)

Name	Title	Present Salary	Full or Part Time

FIGURE 6. SPECIAL EDUCATION FOR HANDICAPPED CHILDREN PROGRAM REPORT FORM

Personnel

Capability exists within the special education consultant staff to specify input and output requirements and to analyze and evaluate the model output as well as utilize the simulation potential. However, the staff does require assistance in forms and systems design and programming. This assistance is available to them through an outside consulting firm, under a contract monitored by the Research Division.

Acceptance of Model Concept

The special education consultants seem very positive toward applying systems and data processing techniques to the handling of educational data. They are anxious to obtain and utilize whatever management and planning tools available to aid them in improving their services. Rhode Island is currently examining the ways in which data processing may be applied to the types of information now being collected for special education use. A potentially difficult aspect of model acceptance and utilization is not the lack of willingness at state level, but, because of the autonomous nature of the LEA, the degree of difficulty that may be encountered in the development of the additional information necessary for input to the model.

VI. ADDITIONAL FACTORS

Since the application of automated data processing techniques to Rhode Island's special education data is in the initiation stage, it is a circumstance of good timing to include consideration of those data elements required by the Manpower Requirements Projection Model. Without this ADP effort, model application would be improbable. However, it will require time to develop the overall system and learn how to work with it.

Another factor that can affect the continuity of both the ADP system and model application is the necessity of securing funding for outside consultant services to provide the necessary technical support. A change in budgetary policy concerning contractual services could endanger the system unless some in-house capability is developed over time.

Other state agencies have an involvement in the handicapped child educational programs and inclusion of their input for model application must be considered if the total state special education manpower requirements are to be considered.

VII. RECOMMENDATIONS

The following recommendations would, upon implementation, provide for the information flow of data elements necessary to Manpower Requirements Projection Model utilization and improve the quality and quantity of information available for special education program management.

Those recommendations critical to model implementation are:

a. The special education consultants engaged in the effort to apply ADP techniques to their data collection and processing procedures should incorporate the model data element requirements in the design of the system. Consideration of these elements during the present design phase will avoid the need for modifications and revisions when the model utilization is desired.

b. Present data collection forms do not provide for all of the data elements required for model utilization. The form shown in Figure 4 and 5, and discussed in Section IV, is recommended as a guide to the design of a system to collect the required data. It may be feasible to use this concept to request data from nonpublic schools and from other state agencies also.

The following information, which is not collected on current data collection formats, would become available:

- Enrollment, by single year of age, for public school programs
- Data concerning pupil transience, including number of children newly diagnosed annually, intrastate transfers, and attritions (including the reasons).

These forms, or ones similar in content, would be prepared at the classroom level, the school level, or the district level, depending upon LEA policy. It may also be feasible to request the cooperation of nonpublic schools and other state agencies involved in the education of handicapped children, in the preparation and submission of this information on these type of forms.

c. The present child population projections, which are by 5-year age and time increments to the year 2000, are not in sufficient detail for model sensitivity. These projections should be analyzed by competent statistical personnel and refined to single year of child age and individual calendar year. This process would not have to be performed for each of the 30 years remaining to year 2000, but perhaps for the next 10 years, and then reviewed and extended annually.

d. The determination of the unserved child population is dependent upon the application of current prevalence rates. Although the use of unvalidated prevalence rates (especially those of national or obsolete origin) is a convenient means of "guesstimating" the theoretical service requirements, even the "ball park" accuracy is questionable. The prevalence rates currently used in Rhode Island should be reviewed in the light of current knowledge; and procedures should be initiated for validating prevalence rates.

The establishment of waiting list information is necessary to the future determination of the level of participation, that is, the amount of service being supplied to the number of children identified as needing it. Obviously, if children are diagnosed and identified as handicapped children only when the required service is available, there is no backlog, no waiting list, and a lower incentive for planning and funding the expansion necessary to service those children awaiting diagnosis.

The present interpretation of the education regulations pertaining to education of handicapped children is that it is mandated that a child identified as handicapped must be provided with special education services. This tends to restrict diagnosis beyond the capability to enroll. It is recommended that a procedure be adopted which will permit the reporting of the results of a diagnosis effort without committing the LEA to providing special education services.

e. The aggregation of information presently being collected which pertains to special education personnel types should be applied to all personnel types including teachers and aides. This will provide a count, by personnel type (teacher of emotionally handicapped, teacher of mentally retarded, etc.) of all active teaching personnel, in addition to that already obtained for administrative and clinical special education personnel.

f. In the initial phase of establishing an information flow and applying ADP techniques, the efforts should probably be confined to those handicapped child educational areas for which the Division of Instructional Services has responsibility. This is so the data collection instruments and procedures, and input preparation and output formats, can be tested and proved before expanding to include other handicapped child educational areas, such as nonpublic schools and other state agencies. However, the cooperation and participation of these areas should be encouraged so that the input data to the Manpower Requirements Projection Model, and the results, will be representative of the state's total manpower requirement.

Recommended actions that would improve the information flow for special education program management include:

a. The existing series of Special Education Forms together with implementation of the aforementioned recommended form, will provide for the collection of all the data required by the Manpower Requirements Projection Model. However, the reliability and consistency of the data may be improved if the personnel preparing the form have some additional guidance. This may be accomplished in several ways:

   1. Prepare written instructions for the preparation of the forms. Explain the need and purpose of the data and define the terminology.

   2. When visiting the local districts and conducting workshops, discuss the forms and their intent. This will give the users an opportunity to directly ask questions pertaining to its use.

b. It may be advisable for the Division of Instructional Services to include in its staff the capability to analyze information requirements, organize and coordinate data sources (LEA and other state agencies), design reporting formats, and implement input of data to the system so that it may obtain maximum utility from available data. The establishment of ADP can eliminate much manual work.

VIII. RESOURCE REQUIREMENTS—MANPOWER

The technical support being provided by a consulting firm is for the development of the overall special education information system. Since the data collection and processing procedures for special education are already under revision, it should be possible to incorporate the additional requirements for model data elements with little additional cost. With the installation of an ADP-based special education information system, the special education consultant staff should have access to the previously recommended system capability. During implementation, this probably would take 1 man-month of special education staff time, 2 man-months of system analyst time, and 2 man-months of programmer time, and 2 man-months of programmer time over a period of 12 to 18 months. Maintenance of the system (forms review, special report requirements, annual inputs, update cycles) is estimated to require a total of 5 man-weeks of combined time.

Equipment

Since there is no existing equipment capacity available within the state's computer center, the necessary capacity will have to be rented. The programs for the Manpower Requirements Projection Model require a minimum of 32k storage and a FORTRAN compiler. Machine running time probably will not exceed one half hour per year.

IX. PERSONS INTERVIEWED

The persons interviewed by the (Leasco) representative, Mr. Carl Koch, during the week of October 13, 1969 were:

Dr. Grace M. Glynn	Associate Commissioner, Division of Instructional Services
Edward F. Wilcox	Associate Commissioner, Division of Research and Development
Francis B. Conley	Consultant in Mental Retardation
Charles Harrington	Consultant, Title VI, ESEA
Diana Lewinstein	Consultant, Emotionally Disturbed
Ettore G. Rosati	Consultant, Education of Blind
Louis M. Khoury	Department of Social Welfare, Mental Health Planning Unit
Allen Menefee	Assistant Director, Department of Health, Office of Mental Retardation
Niles Santamour	Chief, Division of Community Services, O.M.R.
Carla Dowben	Planner, O.M.R.

TABLE 3

SUMMARY OF DATA DEVELOPMENT STATUS

RHODE ISLAND

DATA ELEMENTS			PUBLIC SCHOOLS			STATE INSTITUTIONS			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	**ENROLLED**	**AGE**	Not available	Provide additional form	Classroom, school or LEA depending upon LEA policy	Available	Needs aggregation at each institution. Could be submitted on public school form	Individual institution through agency department head	Needs aggregation at each school. Could be submitted on public school form
		HANDICAPPING CONDITION	Available						
		EDUCATION PROGRAM	Available						
	ON WAITING LIST	**AGE**	Not available	Needs revision of diagnosis/mandate policy	LEA	Not available	Records can be kept if diagnostic backlog is developed	Referrals come from LEA	Not available
		HANDICAPPING CONDITION							
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	**NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION**	**AGE**	Not available	Use same additional form as for enrollments	Classroom, school or LEA depending upon LEA policy	Not available	Needs aggregation at each institution. Could be reported on public school form	Individual institution through agency department head	Needs aggregation at each school. Could be reported on public school form
		HANDICAPPING CONDITION							
	INTRA-STATE TRANSFERS	**AGE**	Not available			Not available			
		HANDICAPPING CONDITION							
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	**AGE**	Not available			Not available			
		HANDICAPPING CONDITION							
		REASON							
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Not available	Refine existing projections	Research & Development Div.				
DATA USED TO SIMULATE SPECIAL EDUCATION	**EDUCATION PROGRAM MIX TRENDS**		Basic data availability	Analysis of data	Special Education Consultants				
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	**TARGET GROUP**	Available		Refer to "Regulations for Education of Handicapped Children"	Available if requested (not necessarily consistant with public school types)			Availability unknown
		EDUCATION PROGRAM	Available						
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Available	Need aggregation for teachers and aides	Special Education Consultants				

SOUTH CAROLINA STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

SOUTH CAROLINA STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual manpower needs under varying assumptions regarding changes in personnel/pupil ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of South Carolina, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

The State of South Carolina is in a fairly good position to develop the information flow necessary to support the proposed Manpower Requirements Projection Model. A substantial amount of data required by the model can already be obtained by the Program for Exceptional Children on an informal basis. The main task of implementing the model would be to formalize some of the existing data reporting procedures in order to receive special education data on a regular basis.

The Program for Exceptional Children has sufficient data processing hardware and software at its disposal to implement the model. Because of the relatively small size of the Program for Exceptional Children, however, it appears that a statistical consultant would be required to develop and maintain the proposed effort.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The responsibility for the education of handicapped children in South Carolina is illustrated in the informal organization chart shown in Figure 1. Only those organizations having educational or informational service functions for handicapped children have been shown. The South Carolina Program for Exceptional Children has the legal responsibility for administering public school special education programs for the following handicapped groups:

a. Educable Mentally Handicapped

b. Trainable Mentally Handicapped

c. Emotionally Handicapped

d. Hearing Handicapped

e. Speech Handicapped

f. Learning Disabilities

g. Orthopedically Handicapped.

The State Commission for the Blind has the responsibility for the two itinerant programs for the visually handicapped in the State of South Carolina. A proposal for a comprehensive state-wide program for visually impaired children has been prepared and will be presented to the state legislature at its next session.

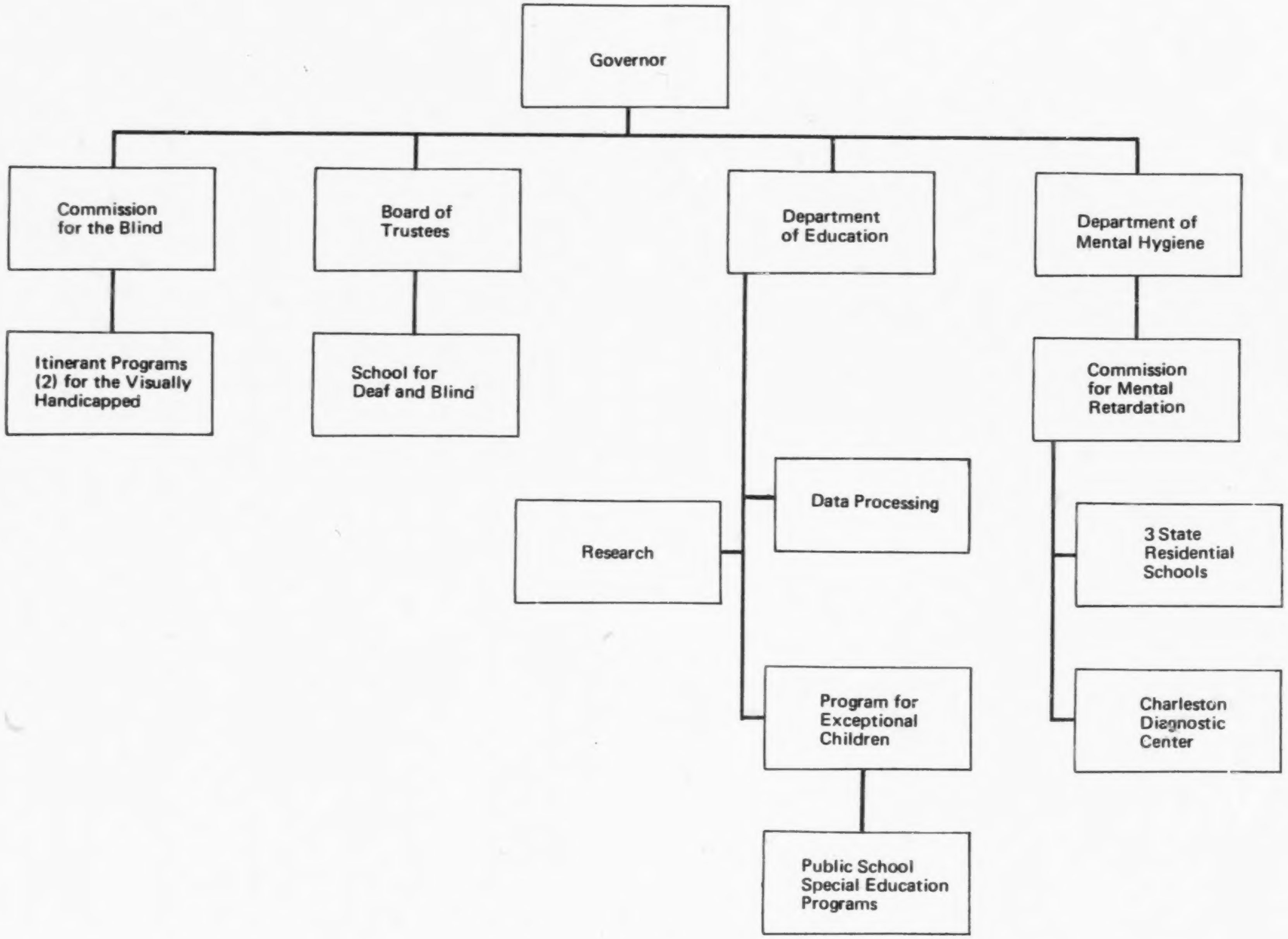
Governor
Commission for the Blind
Itinerant Programs (2) for the Visually Handicapped
Board of Trustees
School for Deaf and Blind
Department of Education
Research
Data Processing
Program for Exceptional Children
Public School Special Education Programs
Department of Mental Hygiene
Commission for Mental Retardation
3 State Residential Schools
Charleston Diagnostic Center

FIGURE 1. ORGANIZATIONAL RESPONSIBILITIES FOR SOUTH CAROLINA'S PROGRAMS FOR EXCEPTIONAL CHILDREN

The South Carolina School for the Deaf and Blind comes under the jurisdiction of its Board of Trustees, while the three state residential schools for the mentally retarded are administered by the Commission for Mental Retardation of the Department of Mental Hygiene. The diagnostic center at Charleston, South Carolina is also the responsibility of the Commission for Mental Retardation.

IV. DATA ELEMENT EVALUATION

Some specific data elements are necessary to the use of the projection model. The information which these data elements provide may also be very useful to the Program for Exceptional Children for other operational analyses. These data elements and their potential sources are discussed in the following paragraphs.

Number of Children Identified as Needing Special Education

Enrolled. At the present time the Program for Exceptional Children receives annual information on the number and types of public school special education classes.[1/] Data on individual pupils is received only for children served by local homebound instruction (PEC Form 41-H). In order to capture data on the number of children, by single year of age and handicapping condition, who are enrolled in each type of special education class, then, a new annual reporting form must be developed. (See Section VII, "RECOMMENDATIONS.")

Enrollment data from the South Carolina School for the Deaf and Blind and the three state schools for the mentally retarded are available to the Program for Exceptional Children upon request. Information on such children by age and handicapping condition is available, therefore, on an informal basis.

Waiting List. At the current time waiting list data for special education classes of public school and residential schools are not regularly supplied by local school district administrators to the state. This data was requested and supplied as a result of the ORI visit to South Carolina. A new form will have to be developed, however, to capture waiting list data on a regular basis from the local school districts. The same procedure may also be followed in obtaining this data from the residential schools. (See Section VII, "RECOMMENDATIONS.")

Number of Children Moving Into and Out Of The Handicapped Child Population

In order to obtain the number of children who have been newly diagnosed as needing special education, new reporting directives would have to be developed and issued by the Division of Special Education and the Commission for Mental Retardation. (See Section VII, "RECOMMENDATIONS.")

[1/] (See, for example, PEC Form 105 and PEC Form 21-EH.)

In addition to children newly diagnosed as handicapped each year by diagnostic clinics or schools, it is possible that school programs will acquire children who have been diagnosed or identified as handicapped previously in other school districts or other parts of the state. Rather than reporting these children again as newly diagnosed (which could distort the incidence picture in the state), these intra-state transfers should be reported separately. Because no mechanism exists to monitor these transfers into special education programs, one would have to be developed by the Program for Exceptional Children.

State residential schools could also be asked to indicate intra-state transfers into their programs, as part of the enrollment data that the Program for Exceptional Children would be requesting each year for inclusion in the model.

In order to obtain the data on the number of children who attrited from the identified handicapped population, the Program for Exceptional Children would have to modify its annual reporting forms. The Program would also have to query those school districts that maintain current waiting lists in order to learn of those children that dropped off the lists because they left the state, died, or became too old to be classed as children.

State residential schools could also be asked to indicate attritions from their special education programs.

General Population Projections

The projected number of children in the general population, by single year of age, for each year for which special education manpower projections are to be made, presents little problem in data collection since Title VI project applications require this information, at least for the coming fiscal year. Projections required by the model are also available for future years, and applying incidence rates, once established, to the number of new entrants, should present no difficulty.

Data Used to Simulate Special Education

Trends in the proportionate number of children served in each educational program, by target group, are available for public school special education programs, and special education programs in institutions from the Program for Exceptional Children.

The personnel/pupil contact ratios for the types of public school personnel in direct contact with the children in each target group in special education programs, is another data item that is readily available from the Program for Exceptional Children. These ratios are published in a document entitled "Administrator's Guide to Programs for Exceptional Children".

For state residential schools, the recommended personnel/pupil contact ratios are determined by the Superintendents of the individual institutions. In most instances, the curriculum is determined, teachers are hired, and the number of children in each class is determined on an individual basis for each teacher. The actual ratios, therefore, may vary from the recommended ratios. For state residential schools, recommended personnel/pupil contact ratios will have to be obtained on an individual basis.

Employment by Personnel Type

The Program for Exceptional Children receives comprehensive data on the personnel employed in public school special education programs. Form PEC 100, "Application for Approval of Teachers of Exceptional Children" contains all of the data required by the model.

Employment data for the residential schools is available to the Program for Exceptional Children upon request from the responsible state agencies. In order to secure such data on a regular basis, however, the Program for Exceptional Children may have to request that it receive copies of the employment data forms sent to the Commission for Mental Retardation, and the Board of Trustees of the South Carolina School for the Deaf and Blind.

V. PROCESSING POTENTIAL

Hardware and Personnel

There is adequate hardware available to the Program for Exceptional Children to process the data and accommodate the projection model. The Department of Education, through its Division of Data Processing uses an IBM 360/30 and has sufficient programming and keypunch services to operate the model. It should be noted that for the IBM 360/30 to be adequate it must have 32K storage.

The funding for the computer time, programming, and keypunching may be absorbed by the Division of Data Processing if the Program for Exceptional Children does not require the output in less than 10 days. If a very limited amount of time were available for the data processing (i.e., less than 10 days) the processing would have to be done through private sources. In that case, the Program for Exceptional Children would be charged for the computer services.

VI. ADDITIONAL FACTORS

The Chief Supervisor of the Program for Exceptional Children, the Assistant Commissioner of Mental Retardation and the Superintendents of individual residential schools were very interested in the proposed model and expressed a desire to see the model implemented in South Carolina. The Division of Data Processing felt that there would be no problem in coordinating its activities with the other agencies in developing and maintaining the information flow serving as the input to the model.

South Carolina has permissive (i.e., non-mandatory) legislation with respect to state regulation of services that local school districts provide to handicapped children. The Program for Exceptional Children has historically received good cooperation from the local school districts in its requests for data. These two factors may enable South Carolina to establish the required information flow fairly easily.

VII. RECOMMENDATIONS

As a result of the interviews with those individuals responsible for special education programs in South Carolina, several actions necessary for implementing the Manpower Requirements Projection Model can be recommended. First, the state agencies accountable for special education programs must close the data gaps between current data availability and the amount of data required by the model. One of the most important items in closing the data gap involves the development of a form to capture information on those children that have been newly diagnosed as needing special education but are not currently being served by a special education program. All school district superintendents should be required to complete this form and supply the data by the fall of each year. Because of the high level of effort imposed on the superintendents by this task, considerable emphasis must be placed on the importance of collecting this data by the Program for Exceptional Children.[2/]

The local district in South Carolina is recommended as the source of this data because it is there that a child is processed to determine eligibility for special education. Cooperative directives could be issued between the Program for Exceptional Children and the Commission for Mental Retardation of the Department of Mental Hygiene to affect the reporting of these newly diagnosed children to the applicable local district by child name, age, address, parent name, and handicapping condition. A chief school officer or his representative responsible for special education (e.g., a director of special education) in each local district could then be queried for individual children's name and records or for totals by age and handicapping condition of those children who are newly certified as needing special education.

If this query method is chosen, a simple matrix form, one by handicap and age, could be used by the local districts in a hash-mark fashion to record the children as they are reported to the district, either as newly diagnosed or as intra-state transfers. See Figure 2 for an example of such a form. This form could then be forwarded to the State Program for Exceptional Children at the end of the year. Such data need not be reported to the state by child

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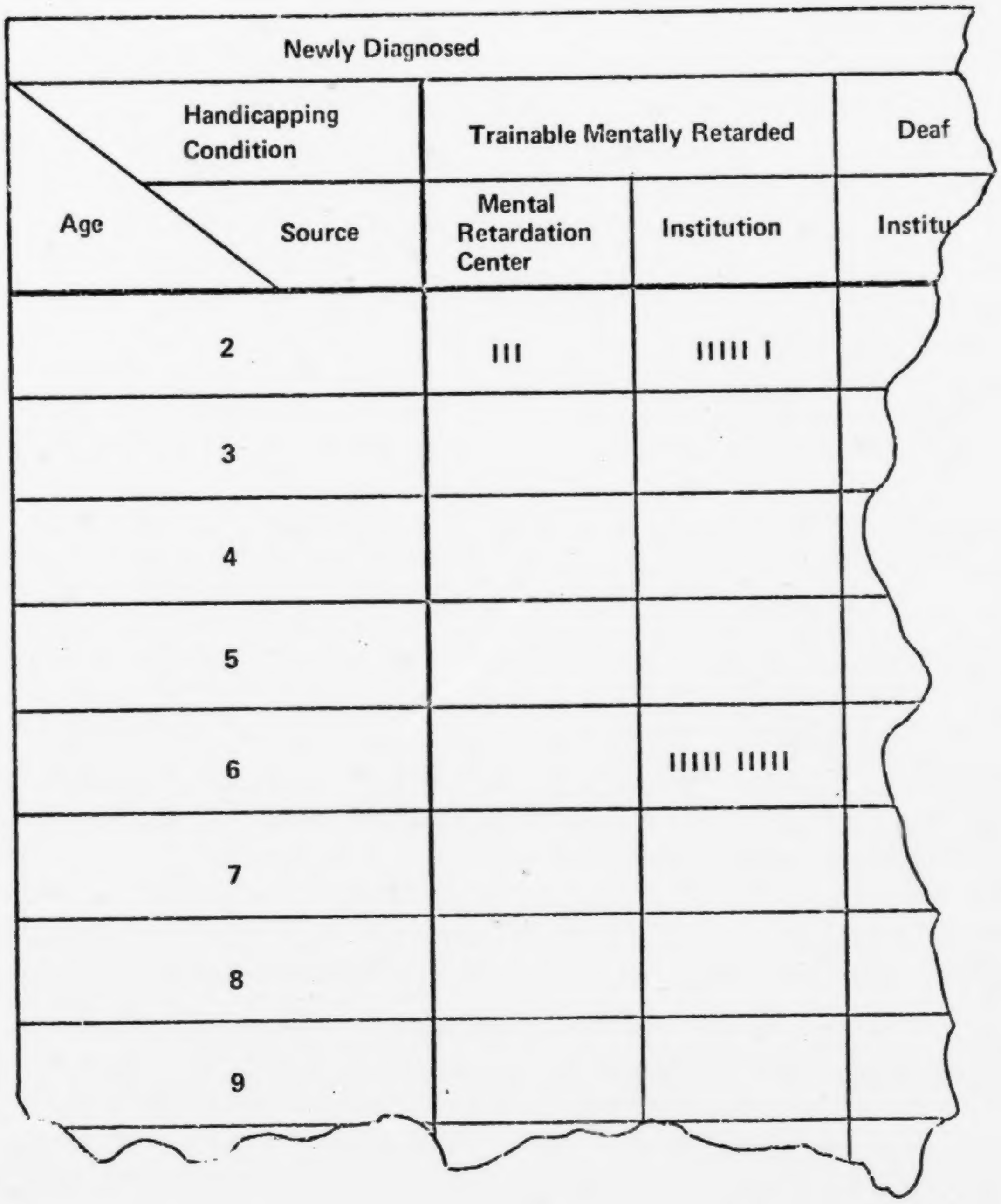
[2/] During the time that is required to develop comprehensive data on the newly diagnosed child population, the Program for Exceptional Children may choose to continue to utilize estimates of this population from past experience and published CEC articles. Using such prevalence rates is only an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, (not only for applying the model but for other state planning purposes), they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternative methods of validating these rates.



Newly Diagnosed			
Handicapping Condition	Trainable Mentally Retarded		Deaf
Age / Source	Mental Retardation Center	Institution	Institu
2	III	IIIII I	
3			
4			
5			
6		IIIII IIIII	
7			
8			
9			

FIGURE 2. EXAMPLE OF MATRIX FORM TO COLLECT LOCAL DISTRICT DATA ABOUT NEW ENTRANTS TO HANDICAPPED CHILD POPULATION AND EXAMPLE OF HASH-MARK ENTRIES

name unless the enrollment and waiting list data are also reported by child name.

The foregoing method for collecting data on entrants to the handicapped child population places the reporting burden on the local school district. While this procedure requires considerable effort from the local superintendents, doing it any other way greatly increases the possibility of double counting.

The second recommendation concerns the enrollment data of public school special education programs. In order to obtain the number of children in each handicapped group, by single year of age and type of class (e.g., resource room, itinerant, etc.), a new annual reporting form must be developed.

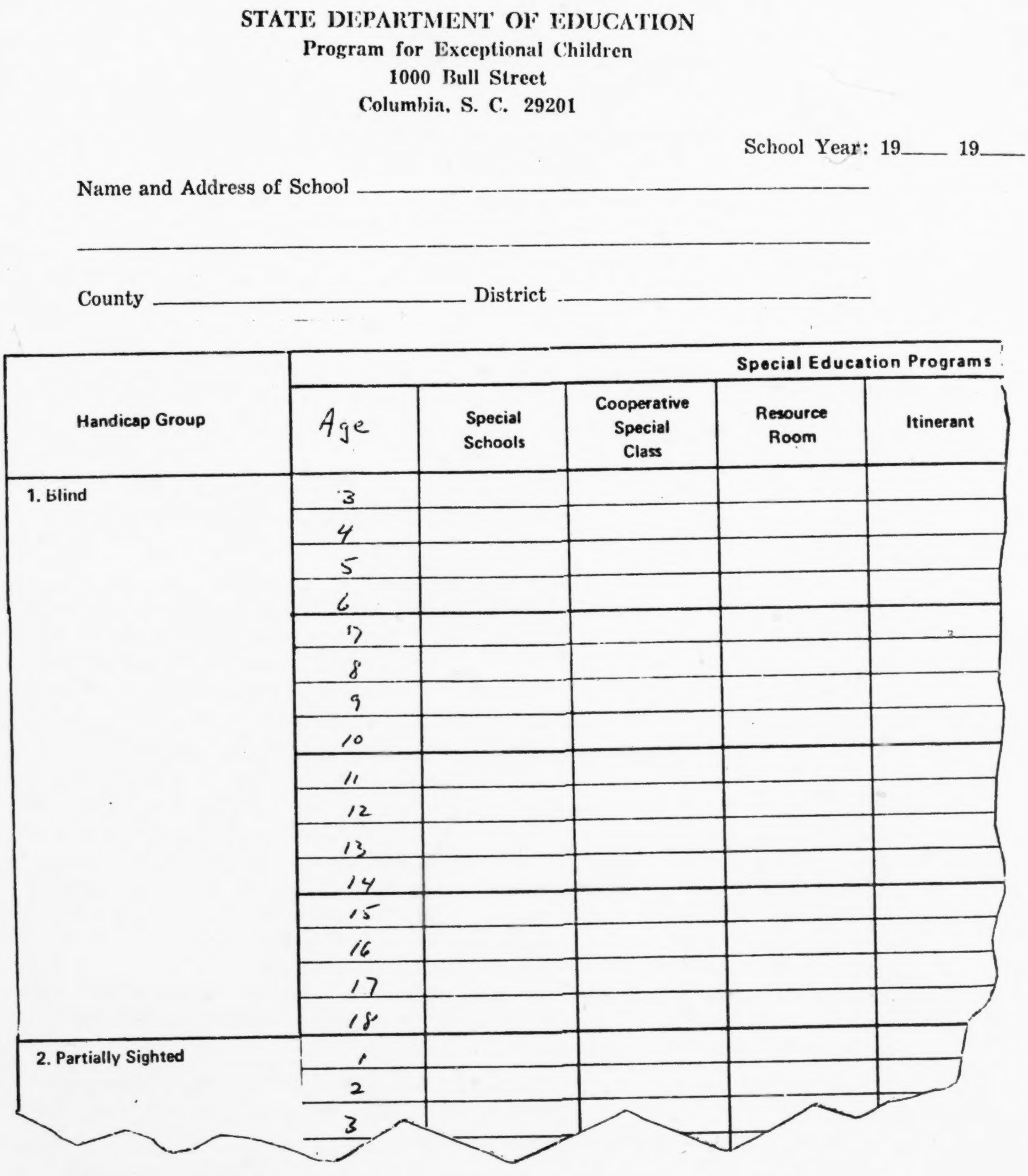
Figure 3 presents an example of the type of annual reporting form that must be developed in order to provide the state with the necessary enrollment data for the model.

The same form as shown in Figure 3 could be used for exceptional children served in a residential school, with the cooperation of the responsible state agency for that school. The present informal arrangement for obtaining enrollment data from these schools may be continued if the Chief Supervisor of the Program for Exceptional Children feels that the arrangement is sufficient for obtaining the necessary data on a regular basis.

The same procedure will have to be followed for obtaining waiting list data, intra-state transfer data, and attrition data. That is, new forms will probably have to be developed to obtain single year of age and specific handicapping condition information for all children waiting entrance to a public school special education program, all children transferring from one public school special education program to another, and all children attriting from a public school special education program. Developing new forms for this data is probably necessary if such data is to be collected regularly from all local school districts. It is recommended that permission be sought from the relevant state agency to allow the new forms to be used to obtain information from residential schools, unless the Program for Exceptional Children feels that present, informal arrangements are satisfactory.

The Program for Exceptional Children will also have to obtain the recommended personnel/pupil contact ratios from the superintendents of the residential schools for handicapped children.

Finally the Program for Exceptional Children will have to request special education personnel employment data from the state agencies that have responsibility for the residential schools, since such data is available from these agencies.



STATE DEPARTMENT OF EDUCATION
Program for Exceptional Children
1000 Bull Street
Columbia, S. C. 29201

School Year: 19____ 19____

Name and Address of School ____

____

County ________________________ District ________________________

Handicap Group	Special Education Programs				
	Age	Special Schools	Cooperative Special Class	Resource Room	Itinerant
1. Blind	3				
	4				
	5				
	6				
	7				
	8				
	9				
	10				
	11				
	12				
	13				
	14				
	15				
	16				
	17				
	18				
2. Partially Sighted	1				
	2				
	3				

FIGURE 3. EXAMPLE OF ANNUAL ENROLLMENT FORM REQUIRED BY MODEL

VIII. RESOURCE REQUIREMENTS

It is estimated that approximately $2\frac{1}{2}$ man-months of special education staff effort, $\frac{1}{2}$ man-month of forms design work, $2\frac{1}{2}$ man-months of systems analyst time and 1 man-month of programmer effort would be necessary to develop the procedures for implementing the model, including coordinating information collecting activities with other state and local agencies over a 2-3 year period. In subsequent years, this effort might be reduced to 1 man-month of cumulative effort to maintain the system. It appears that the services of a statistical consultant would have to be obtained by the Program for Exceptional Children in order to develop and maintain the Manpower Requirements Projection Model since the professional staff of the Program is relatively small.

IX. PERSONS INTERVIEWED

The people interviewed by the ORI (Leasco) representative, Mr. Jeffery Koshel, during the week of November 10, 1969 were:

W. Owens Corder	Chief Supervisor, Program for Exceptional Children
W.B. Crowley	Director, Office General Education, Department of Education
J. Frieze	Assistant Commissioner of Mental Retardation
Robert P. Armstrong	Consultant - Mentally Handicapped
Jeanice Midgett	Supervisor - Special Education, Aiken
Jack R. Harris	Assistant Professor, Elementary Special Education, Clemson
Kay B. Gordon	Consultant, Emotionally Handicapped
Imogene F. Lipscomb	Department Head, Special Education, Columbia College
Timothy A. Keck	Administrative Assistant, South Carolina School for the Deaf and the Blind
N.F. Walker	Superintendent, South Carolina School for the Deaf and the Blind
Ken Glockhart	Coordinator of Special Education, Charles County
Ronald A.M. Whit	Assistant Superintendent for Special Services, Charleston
Hazel B. Cobb	Special Education Coordinator, South Carolina State College
Ushonel I. More	Dean, School of Education, South Carolina State College
Thomas H. Parry	Counselor Education, Department Elementary Special Education, College of Education, Clemson University

David Haleombe	Speech Consultant, Program for Exceptional Children, State Department
Mary T. Mostertz	Supervisor of Special Education, Greenville, South Carolina
Larry W. Gage	Director of Special Education, Sumter
Jim Revels	former Director of Data Processing, Department of Education

X. CURRENT REPORT FORMATS

The following report formats have been mentioned in this report and are presented here for reference purposes:

Form PEC 100, "Application for Approval of Teachers of Exceptional Children"

Form PEC 105, "Requested Reimbursement for Annual Expenditures (Excess Cost)"

Form 21 EH, Requested Reimbursement for Annual Expenditures in Program for Emotionally Handicapped Children

Form PEC 44-H, Annual Report—Education for Homebound Children

Return in Triplicate

✓

STATE DEPARTMENT OF EDUCATION
Program for Exceptional Children
Columbia, S. C. 29201

APPLICATION FOR APPROVAL OF TEACHERS OF EXCEPTIONAL CHILDREN

19__ - 19__

County ____________________ District or Area Number ________________

(REPRODUCED FROM STATE FORM)

	Certificate Number	Name of Teacher	Name of School	Exceptionality *	No. Days Will Teach	Certif
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

* EMH = Educable Mentally Handicapped
TMH = Trainable Mentally Handicapped
EH = Emotionally Handicapped
HH = Hearing Handicapped
SH = Speech Handicapped
OH = Orthopedically Handicapped
VH = Visually Handicapped
P = Psychologist
† √ = Yes (Certified in *special education.*)
X = No (In this case a permit application to teach out of certified field must be submitted.)

____
Chief Supervisor
Program for Exceptional Children

____
District Superintendent

D40-14

STATE DEPARTMENT OF EDUCATION
Program for Exceptional Children
1000 Bull Street
Columbia, S. C. 29201

Approved By

Date

DO NOT write in this space

Return in Triplicate

REQUESTED REIMBURSEMENT FOR ANNUAL EXPENDITURES

(Excess Cost)

Check One

Physically Handicapped Classes ____________________

Trainable Mentally Handicapped Classes ____________________

County ____________________ District ____________________

(REPRODUCED FROM STATE FORM)

List Classes by School and Location	Enrolled	ADA
1.		
2.		
3.		
4.		
5.		
TOTALS		

Reimbursable Expenditures

A. Personnel (Teacher Aides, Nurses, Classroom Assistants, etc.)

1. Name ____________________ Class Location ____________________
   Position ____________________ Annual Salary .... $__________
2. Name ____________________ Class Location ____________________
   Position ____________________ Annual Salary .... $__________
3. Name ____________________ Class Location ____________________
   Position ____________________ Annual Salary .... $__________
4. Name ____________________ Class Location ____________________
   Position ____________________ Annual Salary .... $__________
5. Name ____________________ Class Location ____________________
   Position ____________________ Annual Salary .... $__________

TOTAL—Annual Expenditures (Personnel) .... $__________

PEO 105

✓

Return in Triplicate

STATE DEPARTMENT OF EDUCATION
Program for Exceptional Children
1000 Bull Street
Columbia, S. C. 29201

School Year: 19____ 19____

REQUESTED REIMBURSEMENT FOR ANNUAL EXPENDITURES IN PROGRAM for EMOTIONALLY HANDICAPPED CHILDREN

(Excess Costs)

County ______________________ District or Area ______________________

Reimbursable Categories

A. **Personnel** — Salary

1. Name ______________________ $ __________
   Position ______________________
2. Name ______________________ $ __________
   Position ______________________
3. Name ______________________ $ __________
   Position ______________________
4. Name ______________________ $ __________
   Position ______________________
5. Name ______________________ $ __________
   Position ______________________

TOTAL .... $ __________

(REPRODUCED FROM STATE FORM)

B. **Professional Services**

Type of Service — **Cost**

1. ______________________ $ __________
2. ______________________ $ __________
3. ______________________ $ __________
4. ______________________ $ __________
5. ______________________ $ __________

TOTAL .... $ __________

PEO 21-EH

✓

Return in Triplicate

ANNUAL REPORT—Education for Homebound Children

County__________ Area or District__________ Date__________, 19____

Pupils' Names	Instruction		Number Periods Held	Teachers' Names	Social Security Number	Cert. Number	Gp Cl Gr Exp	
	Beginning Date	Ending Date						

(REPRODUCED FROM STATE FORM)

PEO Form 41-H

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS
SOUTH CAROLINA

DATA ELEMENTS			PUBLIC SCHOOLS			RESIDENTIAL SCHOOLS			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Only available for special education classes	New form must be developed	Local school district superintendents	Available to state on an informal basis	Formal procedures established	Superintendents of schools	Not currently available at state level
		HANDICAPPING CONDITION							
		EDUCATION PROGRAM							
	ON WAITING LIST	AGE	Available on an informal basis			Available on an informal basis			
		HANDICAPPING CONDITION							
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not available	Cooperative directives from P for EC and MR Commission		Not available	Cooperative directives	Superintendents of schools to LSD superintendents	
		HANDICAPPING CONDITION							
	INTRA-STATE TRANSFERS	AGE	Not currently available	New form must be developed		Not currently available	Formal procedures established	Superintendents of schools	
		HANDICAPPING CONDITION							
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE							
		HANDICAPPING CONDITION							
		REASON							
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Currently available	Not applicable	Program for exceptional children				
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS								
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Currently available			Not available at state level	Must be requested	Superintendents of schools	Same as above
		EDUCATION PROGRAM							
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Available			Available (informally)	Formal procedures established		

SOUTH DAKOTA STATE ANALYSIS REPORT

TABLE OF CONTENTS

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IV. DATA ELEMENT EVALUATION D41-4

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VI. ADDITIONAL FACTORS D41-10

VII. RECOMMENDATIONS D41-11

VIII. RESOURCE REQUIREMENTS—MANPOWER D41-14

IX. PERSONS INTERVIEWED D41-15

X. CURRENT REPORT FORMATS D41-15

The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

SOUTH DAKOTA STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of South Dakota, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

In South Dakota, public school special education programs are administered at the state level by the Division of Pupil Personnel Services within the Department of Public Instruction. Both the Acting Director of Pupil Personnel Services and the Administrator of Special Education were enthusiastic about the capability of the projection model and expressed great interest in obtaining the model for application in their state. The Division of Pupil Personnel Services is eager to develop an improved data collection system (it is now working on the Midwestern States Educational Information Project) and views this projection model as a contribution to that objective.

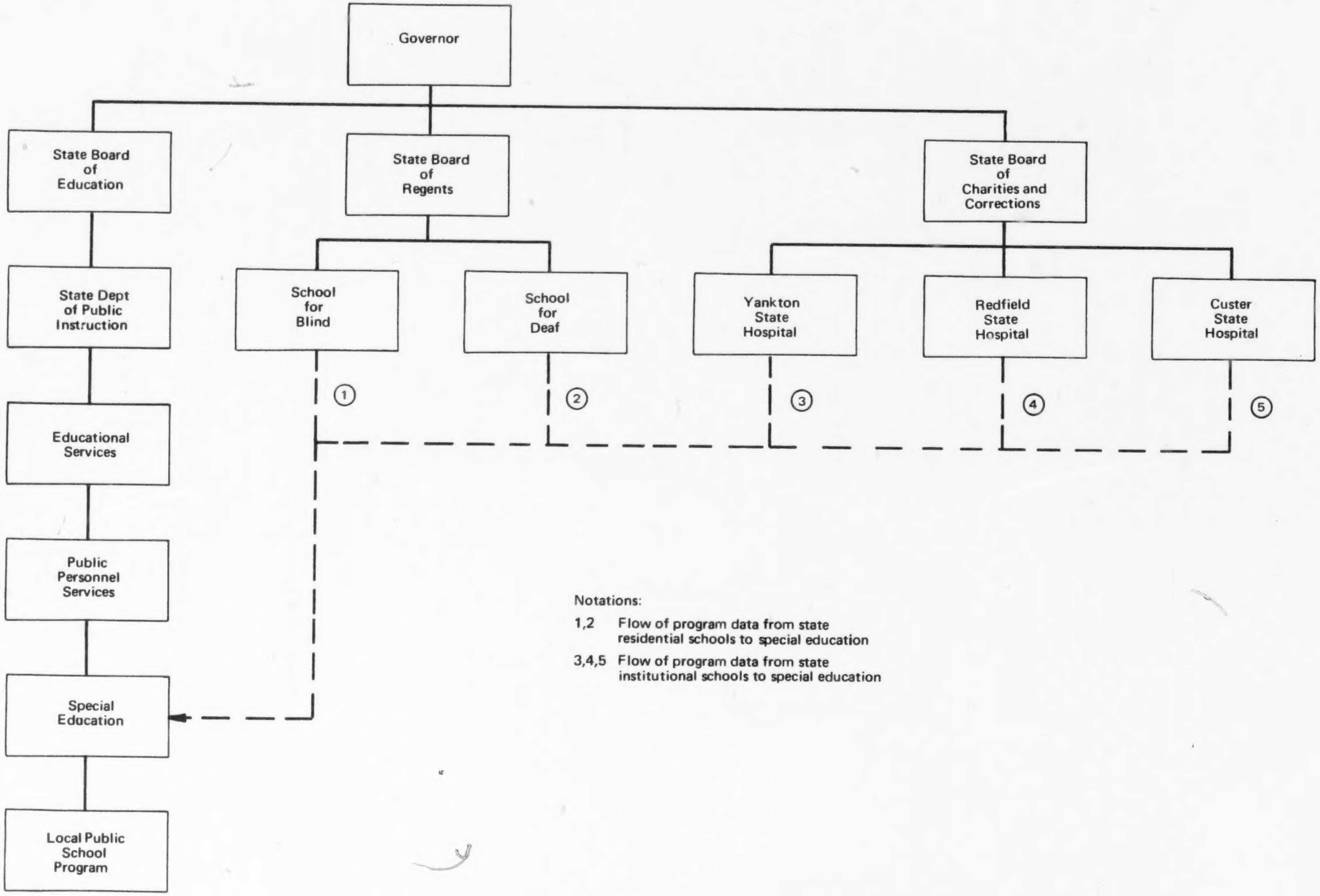
Special Education now receives data on children enrolled in public school programs. With slight modification, the forms now used would satisfy data needs of the model. A file of diagnostic records of public and private school children is maintained by Special Education, and this could provide the basis for data on children waiting for enrollment, as well as children newly diagnosed. In general, modifications to this present format and handling of data at the state level could yield sufficient data for model application.

For children enrolled in residential programs provided by the Board of Regents and institutional programs provided by the Board of Charities and Corrections,data are not now available at the state level, but do exist at each of these schools, and could easily be obtained by Special Education. Likewise, no data is available on private programs at the state level, but because of the small number of schools involved (all have small enrollments), data could easily be obtained when needed by Special Education.

The Division of Pupil Personnel Services would like to begin to utilize the data processing capability available to them through central data processing, which serves all state-level agencies. The Division is planning to introduce a data collection system based on the Midwestern States Educational Information Project, within the next 2 years. This system will require ADP support, and it is likely that many of the data requirements of the model can be satisfied through this new system.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The responsibility for special education in South Dakota is illustrated on the informal organization chart provided in Figure 1.


Governor
State Board of Education
State Dept of Public Instruction
Educational Services
Public Personnel Services
Special Education
Local Public School Program
State Board of Regents
School for Blind
School for Deaf
State Board of Charities and Corrections
Yankton State Hospital
Redfield State Hospital
Custer State Hospital
①
②
③
④
⑤

Notations:

1,2	Flow of program data from state residential schools to special education
3,4,5	Flow of program data from state institutional schools to special education

FIGURE 1. ORGANIZATION OF STATE AGENCIES PROVIDING SPECIAL EDUCATION PROGRAMS IN SOUTH DAKOTA

All public school education in the State of South Dakota is administered by the Superintendent of Public Instruction (an elected position) under the South Dakota State Board of Education. Reporting to the Superintendent is a Deputy Superintendent, and reporting to the Deputy are assistant superintendents for each major organizational area. Under the Assistant Superintendent for Educational Services is the Division of Pupil Personnel Services, and within this division is Special Education, headed by the Administrator of Special Education. Pupil Personnel Services also contains sections for Psychological Services, Title VI, and Guidance and Counseling.

Special Education is responsible for all special education programs conducted in public schools, exclusive of state residential and private schools. Within Special Education is a special section for Speech and Hearing, with a supervisor and a consultant. Evaluation and examination of handicapped children is coordinated at the state level by Psychological Services.

Other state level agencies involved in the administration of special education programs include the State Board of Regents, operating the Schools for the Blind and the Deaf, and the State Board of Charities and Corrections, operating state hospital school programs for emotionally disturbed and mentally retarded at 3 locations. Both of these boards are appointed by the Governor.

IV. DATA ELEMENT EVALUATION

Enrollment

Special Education, within the Division of Pupil Personnel Services, receives data at the beginning of each year on children enrolled in public school special education programs. In most cases, these programs serve mentally retarded children. Each school submits an Application for Program for Handicapped Children, Form SE-2, for each handicap classroom program, listing names of students and birthdates for each student. Special Education also receives each year an Application and Notification of Assignment for Individual Special Education Services, Form SE-1, for each handicapped child placed in a public school program outside of his home school district, as well as each child served in an itinerant program of special education. This form indicates the handicap, birthdate, and type of program in which the child is enrolled. Plans are now being made to apply data processing to this form. Rather than receiving new forms each year on individual children, it would be much more efficient to update the roster of children each year, using data processing to do this. This procedure would also simplify tabulation of the data on these children for inclusion in the model.

Form SH-1 is received from each school providing speech and hearing therapy, listing the names of children served, but not the birthdates. In addition, Form LH-1 has been received from therapists serving children on an individual basis, outside of a school program. This form provides the age of the child (handicap and program are already known). Both SH-1 and LH-1 are in the process of revision at this time. The Supervisor of Speech and Hearing Services stated that date of birth can easily be added to Form SH-1. The form that will replace LH-1 will also include the data items needed for model input. (Copies of these forms are contained in Section X, pages D41-17, 18, 19, 20, 21, of this report.)

The receipt of all of these forms by Special Education would provide public school enrollment data by age, handicap,and program type. Enrollment data for the state residential and institutional schools for handicapped children is not now available at the state level, but does exist, by age and handicap type, at each of the schools. This data may easily be assembled by each school and submitted to Special Education each year. Special Education currently receives no enrollment data from private schools, but since there are only 4 schools serving handicapped, data may easily be obtained (these schools all have small enrollments) by Special Education on a request basis.

Unserved Handicapped Child Population

Special Education currently maintains a file of diagnostic records of all handicapped children, except speech handicaps, enrolled in public and private schools in the state (excluding state residential and institutional schools for the handicapped). This data is received on Forms SEPS-1 and SEPS-2. (See Section X, pp. D41-22, 23 of this report). These forms indicate child's name, birthdate, and diagnosed or suspected handicap. While these forms are designed to record psychological evaluations, diagnosis of physical handicaps (few in number) are also received by Special Education. A count of children diagnosed as handicapped but not yet enrolled in a program could be made by comparing the names of children enrolled in public and private programs each year with the names of children in the total diagnostic file, and then tallying the children not enrolled, by age and by handicap type. In addition, names of children enrolled, as well as children waiting to be enrolled, could be requested from the state residential and institutional schools, and these names could be cross-checked with the public and private school enrollment and diagnostic records, in an effort to eliminate duplication in counting children in a "waiting" status. Because most state schools admit children immediately upon diagnosis, these schools do not anticipate having waiting list data of any consequence.

Waiting list data for speech and hearing handicaps is not now available at the state level, but the revisions being made to the report forms will begin to pick up this data. The revised Form SH-1 will request that therapists list children with speech and hearing problems that have not yet been served. Birthdates for these children can also be included in the revision of this form.

The Special Education Administrator felt that the tabulation of enrollment data, and the tabulation of the diagnostic records (to be compared to enrollment to determine waiting lists) could be done manually be clerical staff, if this data would be required for the model. However, the amount of clerical effort that would go into this on an annual basis would suggest that this task could be handled much more efficiently through the application of data processing.

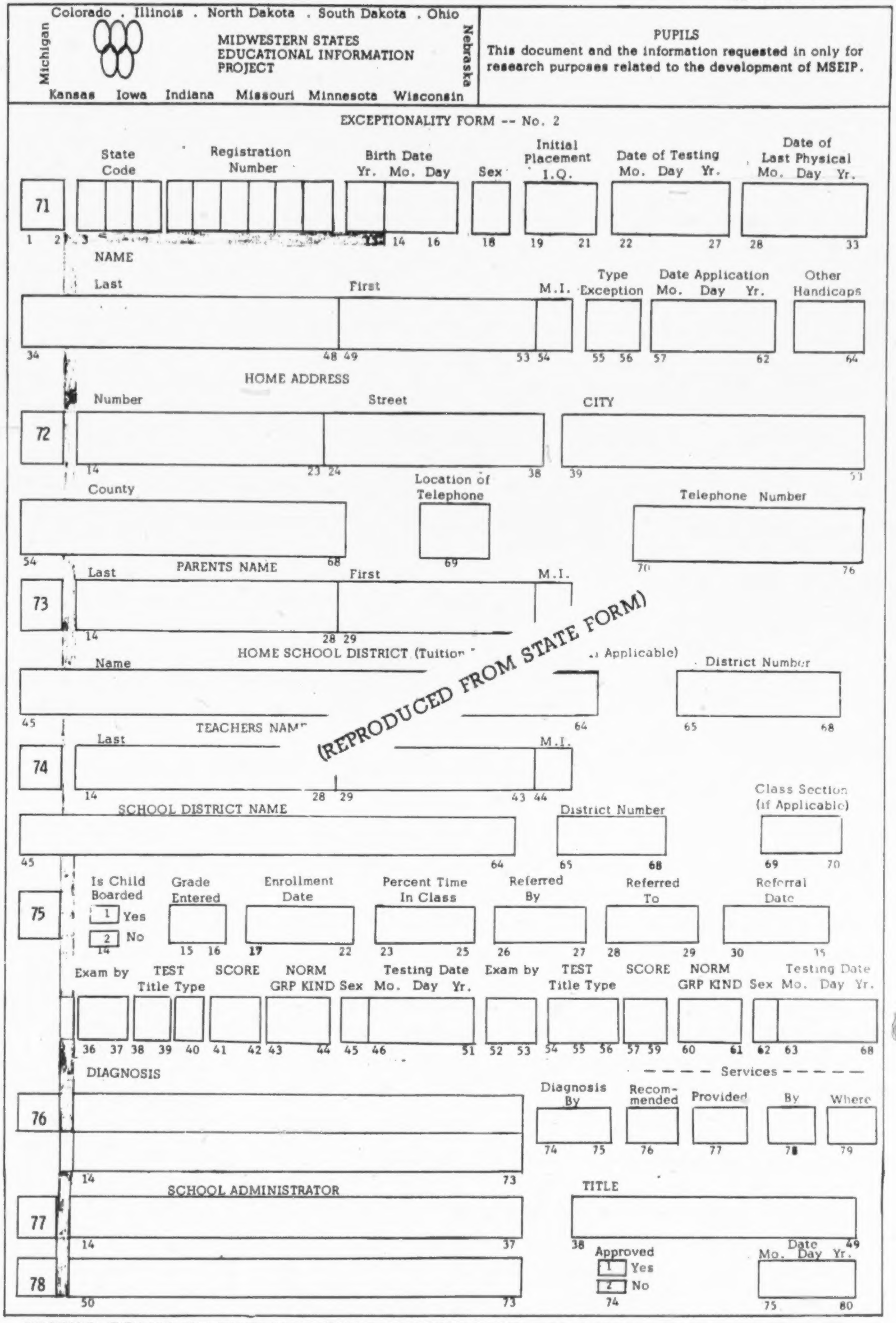
Many hundreds of enrollment and diagnostic records would have to be checked in order to determine the status of these handicapped children. This would pose a difficult clerical task, but would be a fairly simple data processing task. By keypunching data from enrollment records and diagnostic records received, printouts of both children enrolled and children waiting to be enrolled, by age and handicap type, could easily be obtained for input to the projection model. (These printouts of waiting lists would not include speech and hearing handicaps, since speech and hearing waiting list data will be reported to Special Education on the revised SH-1 Form.)

It should be noted that the Midwestern States Educational Information Project (MSEIP) is being pilot tested in five South Dakota schools, and the Director of Pupil Personnel Services is supporting the use of the MSEIP on a regular basis following the pilot test. It is currently planned that, even if the development of a formal MSEIP is not continued, a pupil information format, based on the Pupil Accounting Manual which South Dakota developed as part of its involvement with the MSEIP, will be introduced for special education in South Dakota within the text few years (optimistic). This will provide enrollment data on handicapped children, and possibly some diagnostic data as well. A draft of what this form might look like is shown on the following page (Figure 2). Because this will be handled through data processing, retrieval of data on age, handicap, and program types (possibly using codes to indicate type of service received) should not be taken into consideration in determining whether current enrollment and/or diagnostic data should be keypunched for model application. If the introduction of the new MSEIP-type information form will coincide with the implementation of the model, then modification to current data handling procedures would probably not be advised, in that the final design of this new form could very well satisfy the need for enrollment and waiting list data for public school programs. It should also be noted that, even if public school data requirements are satisfied, Special Education would still need to receive and process both enrollment and waiting list data (or diagnostic data) from private and state schools, as described earlier in this section.

Data on children newly diagnosed each year as handicapped is not currently tabulated by Special Education, but could be assembled from the diagnostic records now received on public and private school children. The forms received each year could be tallied, by age and handicap, for all children newly diagnosed. This tabulation could also be handled through data processing, if diagnostic records were to be keypunched upon receipt (or even annually). This would involve the inclusion of the date of diagnosis as part of the data keypunched, so that printouts of the number of children newly diagnosed during the year, by age and handicap, could be obtained.

Data on speech and hearing handicaps newly diagnosed each year could be obtained through the revised Form SH-1. For both children served and children on the waiting lists, therapists could be asked to indicate the ones identified

FIGURE 2



FD-00-TM-4

Colorado . Illinois . North Dakota . South Dakota . Ohio
Michigan
MIDWESTERN STATES
EDUCATIONAL INFORMATION
PROJECT
Nebraska
Kansas Iowa Indiana Missouri Minnesota Wisconsin

PUPILS
This document and the information requested in only for research purposes related to the development of MSEIP.

EXCEPTIONALITY FORM -- No. 2

71
State Code — 1 2 3
Registration Number
Birth Date Yr. Mo. Day — 13 14 16
Sex — 18
Initial Placement I.Q. — 19 21
Date of Testing Mo. Day Yr. — 22 27
Date of Last Physical Mo. Day Yr. — 28 33

NAME
Last — 34 48
First — 49 53
M.I. — 54
Type Exception — 55 56
Date Application Mo. Day Yr. — 57 62
Other Handicaps — 64

72
HOME ADDRESS
Number — 14 23
Street — 24 38
CITY — 39 53
County — 54 68
Location of Telephone — 69
Telephone Number — 70 76

73
PARENTS NAME
Last — 14 28
First — 29
M.I.

HOME SCHOOL DISTRICT (Tuition … Applicable)
Name — 45 64
District Number — 65 68

(REPRODUCED FROM STATE FORM)

74
TEACHERS NAM…
Last — 14 28
First — 29 43
M.I. — 44

SCHOOL DISTRICT NAME — 45 64
District Number — 65 68
Class Section (if Applicable) — 69 70

75
Is Child Boarded — 1 Yes 2 No — 14
Grade Entered — 15 16
Enrollment Date — 17 22
Percent Time In Class — 23 25
Referred By — 26 27
Referred To — 28 29
Referral Date — 30 35

Exam by — 36 37
TEST Title Type — 38 39 40
SCORE — 41 42
NORM GRP KIND — 43 44
Sex — 45
Testing Date Mo. Day Yr. — 46 51
Exam by — 52 53
TEST Title Type — 54 55 56
SCORE — 57 59
NORM GRP KIND — 60 61
Sex — 62
Testing Date Mo. Day Yr. — 63 68

76
DIAGNOSIS — 14 73
Diagnosis By — 74 75
---- Services ----
Recommended — 76
Provided — 77
By — 78
Where — 79

77
SCHOOL ADMINISTRATOR — 14 37
TITLE — 38 49

78
50 73
Approved — 1 Yes 2 No — 74
Date Mo. Day Yr. — 75 80

INITIAL DRAFT OF FORMAT BEING CONSIDERED FOR MSEIP IN SOUTH DAKOTA D41-7 as handicapped for the first time during that year. In addition, the new form being designed to replace Form LH-1 will be received from each therapist, for each child identified as needing individual service outside of a regular school program. These newly diagnosed children can be added to the children identified through Form SH-1.

Data from state residential and institutional schools on children newly diagnosed as handicapped is not now available at the state level, but this data can be obtained from each of these schools by Special Education on a request basis.

For estimation of total handicap population in the state, national prevalence statistics, corrected by some local studies and surveys, have been used. In addition, state law requires that an annual school census be conducted, and that handicapped children identified, including pre-school children, be reported to Special Education. However, because of the lack of qualified diagnostic personnel associated with the census at the local level, it is felt that the counts of handicapped have been totally inaccurate and of no real value to Special Education. If qualified diagnosticians could be employed in the census, it could be developed into a prime source of data on children identified as handicapped each year, and could be used to further modify or verify the prevalence rates each year in South Dakota. While prevalence rates may be useful as an interim method of estimating the handicapped population, validation of the rates using actual data would be necessary. Documents which contain more detailed descriptions of alternative methods of validating these rates will be forthcoming as part of this project for BEH.

Attrition

Attrition data on children leaving public school programs is currently received by Special Education on a Notice of Enrollment or Dismissal form (contained in Section X, page D41-24, of this report). This form now lists name of pupil, date, reason for dismissal, and comments. The form could be modified for special education to record date of birth and type of handicap and to structure the comments section to include return to regular education, mortality, transfer to other special education program in state, or other reasons.

Attrition data for speech and hearing handicaps could be obtained through a modified Form SH-1. The current SH-1 requests information on whether each child served is to be dismissed, to continue therapy, or is transferred or dropped. The form could be modified to include the four reasons for attrition listed in the previous paragraph. Speech and Hearing Therapists serving children outside of a regular school program (not reported on Form SH-1) could also be asked to report the reasons for attrition among their children, using the modified Notice of Enrollment or Dismissal form which will list the reasons for attrition needed for the projection model.

Attrition data covering private and state school programs is not now available at the state level, but could be obtained by Special Education from each of these schools on an individual request basis. (While the Yankton State Hospital does not now have staff to conduct follow-up of students who leave, in order to accurately record status of attritions, they could provide data on where students planned to go upon termination from the program.) Transfers to other special education programs in the state would also be included in this attrition data from private and state schools.

General Population Projections

Projections of the general child population in the state, by single year of age, may be requested from the Statistical Services section with the Department of Public Instruction. Statistical Services compiles data each year on the number of children in the general population of the state, and this data is supplied to all divisions of the Department of Public Instruction.

Trends In Enrollments

Data to plot enrollment trends in public school special education programs does exist at the state level, with the exception of speech handicaps, for which data on age of children served would have to be developed (as described earlier in this section). The Special Education Administrator reports that some trend work has been done in the past, and no problem is anticipated in assembling the needed data. Enrollment trends for private and state schools could be plotted by Special Education (given their enrollment data) or by the individual schools themselves.

Personnel/Pupil Contact Ratios

Personnel/pupil contact ratios for public school programs have been established for most handicap groups and program types. Recommendations are made for the minimum and maximum number of children to be enrolled in classrooms. While ratios are not recommended for all handicaps and programs, practical ratios can be determined by Special Education. Contact ratios for the private schools and state schools are determined by each of these schools on an individual basis, and would, of course, be available to Special Education.

Personnel

Data on the number and types of special education personnel employed in public school programs is currently available at the state level. All public school personnel complete a Personnel Record form each year (Section X, p. D41-25, of this report). This form is also based on the MSEIP, and includes degree level, type of certification, etc. This data is keypunched by the Department of Public Instruction, and Special Education is provided with a printout each year, listing appropriate special education personnel. In addition, the Department of Public Instruction also provides certification for most personnel employed by private and state residential and institutional schools. Special Education can obtain this personnel information through the Teacher Education and Certification office, or directly from each of the schools involved.

V. PROCESSING POTENTIAL

Hardware

Data processing services for all state level agencies in South Dakota are provided by Central Data Processing. This facility is located in the Highway

Building in the capitol, and is managed by the State Budget Office. Central Data Processing houses an IBM 360/40 having 128K capacity, 9 disc packs, 4 tape drives. It has a FORTRAN compiler, and would satisfy all model requirements. The Department of Public Instruction does utilize this facility for data processing support, and so Special Education would have access to the facility.

Personnel

The personnel necessary for implementation, operation, and analysis of the Manpower Requirements Projection Model are present, within the Department of Public Instruction, and within Central Data Processing as well.

Under the Assistant Superintendent for Administration and Services is the Coordinator of Statistical Services, employing staff for keypunching and verifying. This Coordinator is also developing, under Special Projects, the Midwestern States Educational Information Project for the state of South Dakota. Plans are to pilot test the MSEIP on a small scale in South Dakota during this school year. (This MSEIP, if implemented in the state, could provide the bulk of the data needed by the Manpower Requirements Projection Model.)

The Department of Public Instruction also employs a Systems Analyst and Information Specialist who would be available, if needed, to support model implementation and application. Central Data Processing has a staff of analysts, programmers, keypunch and verifier personnel, and this staff could be utilized, if necessary, to support the model. It is likely, however, that the systems personnel within the Department of Public Instruction can provide all support needed.

Acceptance of Model Concept

At the present time, Special Education does not utilize any data processing service. All record keeping is being handled manually. There is, however, much interest on the part of the Pupil Personnel Service Division to begin to utilize the data processing capability that now exists. Included in this would be the development and application of the Manpower Requirements Projection Model. Both the Director of the Division and the Special Education Administrator expressed interest in the model and willingness to develop as much of the needed input data as possible. They were extremely cooperative in providing information on the operations that would relate to model application.

VI. ADDITIONAL FACTORS

The general school population, and the handicapped child population, is relatively small in South Dakota, and so the administration of special education programs in public schools has not required a large organization at the state level. While the reporting system currently used has satisfied, in general, the information requirements at the state level, the Director of Pupil Personnel Services is apparently anxious to explore new approaches to information collection and utilization. He is enthusiastic about the Midwestern States Educational

Information Project, and is anxious to see it implemented in the state. Plans are to implement a pupil information system for special education, based upon the MSEIP system. As mentioned earlier in this report, the MSEIP is being pilot tested in five schools in South Dakota this year. In general, the attitude toward the development of new ideas in information handling seems to be very positive in South Dakota, and this same attitude seems to be present in discussions and examination of the concept of the Manpower Requirements Projection Model.

The Special Education Administrator stated that the South Dakota legislature has been very responsive to the needs of education in the state. Because of this, it is felt that the projection model, if made available to Special Education, could provide support for a request for legislation which would strengthen the position of Special Education in the area of data collection. For example, legislation could be sought to provide coordination of all diagnostic facilities in the state, with a flow of all diagnostic information coming into Special Education. (While diagnostic data is already received from school psychologists, therapists, and many private practitioners, no data is received from Mental Health Centers doing diagnostic work.)

Another factor which may affect model implementation in South Dakota relates, again, to the size and scope of special education programs in the state. Because of the small number of state residential and private programs operating in the state, Special Education can maintain contact with these programs with no real difficulty. Because of the good informal working relationships that exist between Special Education and the other state and private programs, no problem is anticipated in enlisting their cooperation in the model application effort.

VII. RECOMMENDATIONS

Special Education currently receives public school enrollment data sufficient to identify handicapped children (except speech handicaps) by age, handicap type, and education program type. This data is received at the beginning of each year on Forms SE-1 and SE-2. With the addition of birthdate or year of age to the data collected on Form SH-1, and the introduction of a new form to replace LH-1 in reporting individual speech and hearing services, Special Education would then have all needed data on speech and hearing handicapped children as well.

For the two state residential schools operated by the Board of Regents, and the three institutional schools operated by the Board of Charities and Corrections, enrollment data which now exists at each of these schools may be obtained by Special Education on an individual request basis. Data on children enrolled in each of the four private schools serving handicapped also exists at each of these schools, and may be obtained on an individual request basis. No difficulty is anticipated, in that enrollments in all of these schools are relatively small.

The file of diagnostic records currently maintained by Special Education (Forms SEPS-1 and SEPS-2) could provide the basis for determining the number of children diagnosed as handicapped but not yet enrolled in public school or private school programs (excluding speech and hearing). By comparing the names, or simply the total number, of children diagnosed as handicapped with the names, or number, of children enrolled in public and private school programs, those children not enrolled could be identified, by age and handicap. For speech and hearing handicapped, the revised Form SH-1 will include a list of children waiting to be served. Lists of children enrolled or waiting to be enrolled at state residential and institutional schools could also be requested, and included in the cross-checking procedure. Waiting list data would be requested from state schools anyway, as input to the projection model, regardless of whether the data would be included in a cross check with public and private school data.

Counts of children newly diagnosed as handicapped each year may also be obtained from the diagnostic record file maintained by Special Education. This would require tallying, by handicap and year of age, the number of diagnostic records of public and private school children received by Special Education during a school year. For speech and hearing handicaps, Revised Form SH-1 could request that therapists indicate which children enrolled or waiting to be enrolled were identified for the first time as handicapped. For state schools, Special Education could request counts of children newly diagnosed or identified during the year from each individual school. In most cases, this count will consist of those children newly admitted to the school or institution, in that these schools do their own diagnosis of a child, in almost all cases, prior to taking the child into the program, or admitting the child to the institution itself.

Unless specific data items from the enrollment forms and diagnostic forms can be keypunched for subsequent printout, the tabulation of enrollment data, waiting list data, and incidence data, as needed for projection, would have to be done manually by clerical staff. Although the Special Education Administrator stated that, if necessary, manual tabulation could be arranged, there was general agreement that the application of data processing would be a great deal more efficient. Because the Director of Pupil Personnel Service is anxious to begin to utilize the data processing capability that is available to his division, the conversion to automated data processing (ADP) record-keeping should be examined by Special Education as part of the groundwork for projection model implementation.

Further, current plans to introduce an MSEIP-based pupil accounting system should also be examined in light of the data development and data processing requirements of model implementation. Pupil Personnel Services could request age, handicap, and program or service for children enrolled (these items are, in fact, already planned), and also diagnostic data which, when compared to type of program or service received, could provide waiting list data and incidence data for public school programs. The use of the proposed MSEIP data collection system to provide input data to the model should be examined first, before any other development work is done to prepare for model implementation.

Another point to note is that the accuracy of the calculation of the waiting list data, and the incidence data as well, is a function of the completeness of the diagnostic record file maintained by Special Education. While data is received from school psychologists, therapists, clinicians, private medical and psychological practitioners, there are still other diagnostic facilities in the state, e.g., six Mental Health Centers, which do not provide Special Education with diagnostic data on a regular basis. As part of model implementation efforts, Special Education should explore the possibility of establishing a channel for diagnostic information flow from those diagnostic facilities not now involved with Special Education. Two general approaches could be explored. First, these facilities could submit copies of diagnostic forms, or summaries of relevant information, to Special Education on an on-going basis. Second, these facilities could be asked to tally age and handicap data on an annual basis, and submit this summary data to Special Education. Because of questions such as confidentiality in inter-agency information exchange, the former alternative would probably be the most difficult to arrange, in the absence of new legislation to centralize diagnostic data in the state. (The State of South Dakota has been investigating the possibility of a central diagnostic facility to serve the entire state. If this possibility develops, Special Education should be in a position to obtain much diagnostic data from this central source.)

Attrition data on children leaving public school programs may be obtained through simple modification of the Notice of Enrollment or Dismissal form now in use. Date of birth (or year of age) and type of handicap could be added to the form. Also, the Reason for Dismissal or the Comments sections could be structured to indicate specific reasons for attrition — return to regular education, mortality, transfer to other special education program in state, or other reasons. Instructions on the use of this form should emphasize that, for handicapped children, all attrition, including completion of a program, should be reported. For private schools and state residential and institutional schools, attrition data could be available to Special Education on a request basis.

Projections of the general child population, by single year of age, may be requested from the Statistical Services section, Department of Public Instruction.

Pending development of new forms to obtain year of age data for speech and hearing handicaps, Special Education will have all data needed to plot enrollment trends in public school programs. For private schools and state schools, enrollment data reported to Special Education for inclusion in the projection model could be used by Special Education to plot trends for these schools (or individual schools may plot enrollment trends for themselves with no real difficulty).

Personnel/pupil contact ratios exist for most handicap programs in public schools, and practical ratios can easily be determined for other handicap programs. For private and state schools, contact ratios may be obtained by Special Education on request from each individual school.

Data on numbers and types of personnel employed in public school special education programs is available to Special Education through printouts of the Personnel Record forms which are collected and processed each year by the Department of Public Instruction. Because the state provides certification for many teachers in private and state schools, some data on personnel in these private and state programs is available within the Department of Public Instruction. Personnel data may also be obtained from each of these schools on an individual request basis, which is probably the simpler and more accurate of the alternative ways to obtain the data.

In order to facilitate the collection and tabulation of data elements to be requested from the private and state residential and institutional schools in the state, Special Education could develop formats and instructions to be followed by these schools in responding to the requests for data needed for the projection model. The use of standardized forms would ensure more complete and more consistent responses from the schools involved.

Special Education could also examine the possibility of using qualified special education personnel in the annual school census, in order to obtain more accurate data on the numbers and kinds of handicapped children in the state. Because the census mechanism already exists, the potential of the census to provide better data on the handicapped population should be developed.

VIII. RESOURCE REQUIREMENTS—MANPOWER

In light of the recommendations in the preceding section of this report, the manpower requirements for expansion and modification of the existing information flow system, and for implementation of the Manpower Requirements Projection Model, may be summarized as follows:

The basic tasks to be performed would require time on the part of a qualified systems analyst. These tasks would include redesign of existing data collection formats; design of file for diagnostic data; procedure writing; establishment of interface with state and public schools; establishment of interface with data processing facility, as part of conversion to ADP system. A minimum of 3 man-months of systems analyst time would be required to accomplish these tasks. In addition, the services of 2 man-months of special education staff, and 1 man-month of a programmer's time would be required. This time would probably be spread over 2-3 calendar years. On-going maintenance of the information flow would require approximately one man-month of cumulative time each year, with an additional 1/2 man-month of clerical time.

IX. PERSONS INTERVIEWED

Richard Parker	Acting Director, Division of Pupil Personnel Services, Department of Public Instruction
Paul McAveavey	Administrator, Special Education, Division of Pupil Personnel Services
Jerry Parkinson	Director, State Board of Charities and Corrections
Richard Gibb	Commissioner, State Board of Regents
Les Mord	Coordinator, Statistical Services, Department of Public Instruction
Charles Anderson	Supervisor, Speech and Hearing, Special Education, Division of Pupil Personnel Services

X. CURRENT REPORT FORMATS

Form SE-2, Application for Program for Handicapped Children

Form SE-1, Application and Notification of Assignment for Individual Special Education Services

Form SH-1, Form listing children treated for speech problems

Form LH-1, Information for Speech Therapy Assigned by Department of Public Instruction

Form SEPS-1, Request for Psychological Evaluation

Form SEPS-2, Report of Psychological Evaluation

Notice of Enrollment or Dismissal

Personnel Record

DEPARTMENT OF PUBLIC INSTRUCTION
DIVISION OF PUPIL PERSONNEL SERVICES
804 NORTH EUCLID
PIERRE, SOUTH DAKOTA 57501

Form SE-2
Rev. 1969

Application for Program for Handicapped Children

Application is hereby submitted for approval of the program outlined:

_____ Physically Handicapped
_____ Educable Mentally Retarded
_____ Trainable Mentally Retarded
_____ Emotionally Disturbed
_____ Combined Educable/Trainable Mentally Retarded

(REPRODUCED FROM STATE FORM)

NAME OF SCHOOL_____________________________________

ADDRESS_____________________________________

NAME OF:

Superintendent _____________________________________

Building Principal_____________________________________

Special Education Supervisor_____________________________________

Percent of time in this position_______________ Salary_______________

Special Education Teacher_____________________________________

Percent of time in this position_______________ Salary_______________

Teacher's Aide_____________________________________

Percent of time in this position_______________ Salary_______________

APPLICATION SUBMITTED BY _____________________________________
(Signature of Local School Official)

DATE_______________

==

(Space below for State Department use.)

Date application was received by State Department _______________

Application (approved) (not approved) by State Department of Public Instruction on

_______________.
(Date)

COMMENTS: _____________________________________

____

____

Title_____________________________________
Division of Pupil Personnel Services

(Application to be submitted in duplicate for each classroom unit.)

D41-16

ROSTER:

SCHOOL DISTRICT____________________________

TEACHER____________________________

NAME OF STUDENT	BIRTHDATE	SCHOOL DISTRICT		STATE DEPARTMENT USE
		Resident	Non-Resident*	

*Form SE-1, completed in triplicate, must be submitted for each NON-RESIDENT student.

==

(Space below for State Department use only.)

The above-named children have been found to be exceptional children under the provisions of South Dakota Code 15.3004, as amended, and are approved for assignment to the special education classroom designated above for the ________________ school year.

DATE________________________

____

____

Department of Public Instruction
Division of Pupil Personnel Services

(Submit in triplicate)

DEPARTMENT OF PUBLIC INSTRUCTION
DIVISION OF PUPIL PERSONNEL SERVICES
804 NORTH EUCLID
PIERRE, SOUTH DAKOTA 57501

Form SE-1
Rev. 1969

APPLICATION AND NOTIFICATION OF ASSIGNMENT FOR INDIVIDUAL SPECIAL EDUCATION SERVICES

A. TYPE OF DISABILITY: Physical____ Mentally Retarded____ Speech____ Hearing___
Emotionally Disturbed___

B. Name of Child______________________________ Sex: M__ F__ Birthdate____________

Home Address____

Name of Parent or Guardian______________________________ ____________________

(REPRODUCED FROM STATE FORM)

C. VERIFICATION OF SCHOOL DISTRICT RESIDENCE:

Name of School District__________ ________________________________

Clerk's Name____________ _____ Mailing Address________________________

Date________________ S_gnature of School Official________________________

Title________________________

D. TYPE OF SERVICE REQUESTED: Classroom: EMR___ TMR___ Emot. Dist.____
Therapy: Physical____ Speech____ Hearing____
Hosp. Sch.____ Tutoring____ Sch.-to-Home Tele.____

Date service to begin______________________________

Name of School or Individual Who is to Provide Service:

Signature______________________________ Facility____________________________

Title______________________________ Address____________________________

E. An evaluation by a Psychological Examiner (mentally retarded and emotionally disturbed)or Speech Clinician (speech handicapped) or Physician (physically handicapped) should accompany this request for services unless a previous evaluation is on file with the Division of Pupil Personnel Services, Department of Public Instruction.

F. ASSIGNMENT: (For State Department use only)

Approved for above service from ____________________ to____________________

and to be financed according to the regulations of South Dakota Code 15.3004.

DATE__________________________ DIVISION OF PUPIL PERSONNEL SERVICES

NAME______________________________

TITLE______________________________

FORM SH-1

DEPARTMENT OF PUBLIC INSTRUCTION
DIVISION OF PUPIL PERSONNEL SERVICES
804 NORTH EUCLID
PIERRE, SOUTH DAKOTA 57501

School Providing Service ______ Address ______ Superintendent ______

Therapist ______ Address ______ Date ______

KEY: Type of Speech Problem (please classify): A=Articulation; B=Voice; C=Stuttering; D=Delayed Speech; E=Cleft Palate; F=Hard of Hearing; G=Cerebral Palsy; H=Articulation-Stuttering; I=Articulation-Voice; J=Articulation-Hearing Impairment; K=Articulation-Tongue Thrust; L=Articulation-Language; M=Stuttering-Voice; N=Hearing Impairment-Language.

Comments or Recommendations: To be dismissed; to continue speech therapy; transferred or dropped.

1. Name ______ Sex: M ___ F ___ Parent ______ Address ______
County of Home Residence ______ Type of Speech Problem ______ Comments ______

2. Name ______ Sex: M ___ F ___ Parent ______ Address ______
County of Home Residence ______ Type of Speech Problem ______ Comments ______

3. Name ______ Sex: M ___ F ___ Parent ______ Address ______
County of Home Residence ______ Type of Speech Problem ______ Comments ______

4. Name ______ Sex: M ___ F ___ Parent ______ Address ______
County of Home Residence ______ Type of Speech [illegible] ______ Comments ______

(REPRODUCED FROM STATE FORM)

5. Name ______ Sex: M ___ F [illegible] ______ Address ______
County of Home Residence ______ T[illegible] Speech Problem ______ Comments ______

6. Name ______ Sex: M ___ F ___ Parent ______ Address ______
County of Home Residence ______ Type of Speech Problem ______ Comments ______

7. Name ______ Sex: M ___ F ___ Parent ______ Address ______
County of Home Residence ______ Type of Speech Problem ______ Comments ______

8. Name ______ Sex: M ___ F ___ Parent ______ Address ______
County of Home Residence ______ Type of Speech Problem ______ Comments ______

9. Name ______ Sex: M ___ F ___ Parent ______ Address ______
County of Home Residence ______ Type of Speech Problem ______ Comments ______

Form LH-1

DEPARTMENT OF PUBLIC INSTRUCTION
DIVISION OF PUPIL PERSONNEL SERVICES
Robert L. Huckins, Director
804 North Euclid
Pierre, South Dakota 57501

Charles A. Anderson
Supervisor, Speech and Hearing Services

Verna Ann Longwood
Speech and Hearing Consultant

INFORMATION FOR SPEECH THERAPY ASSIGNED BY DEPARTMENT OF PUBLIC INSTRUCTION

NAME ____________ DATE OF BIRTH ________ SEX: M____ F ____

NAME OF PARENT ____________ ADDRESS ____________

COUNTY ________ FAMILY PHYSICIAN ____________ DATE ________

SPEECH

DESCRIPTION OF PROBLEM: ____________

PROGNOSIS: ____________

(REPRODUCED FROM STATE FORM)

RECOMMENDATIONS: ____________

HEARING

COMMENTS: ____________

EXAMINER ____________ CERTIFICATION ____________

TITLE ____________

DATE ____________

Send completed form to:
Robert L. Huckins, Director
Division of Pupil Personnel Services
Department of Public Instruction
804 North Euclid
Pierre, South Dakota 57501

[illegible] State Department use
Approved for testing____
Refer to____

REQUEST FOR PSYCHOLOGICAL EVALUATION

SEPS-1 Rev

NAME OF CHILD____ GRADE____ BIRTHDATE____

SEX: M____ F____

____
(Name and address of school child is attending)

____
(Name of Parent or Guardian) (Address) (Zip) (County)

REASON FOR REFERRAL____

PREVIOUS TEST INFORMATION: (Individual evaluation or group testing programs.)

Intelligence____
(Name of Test, Date of Test, Results. Indicate if percentile, IQ, etc.)

Achievement____
(Name of Test, Date of Test, Results. Indicate if percentile, grade placement, etc.)

(REPRODUCED FROM STATE FORM)

BACKGROUND INFORMATION:

Medical History - (Is there anything in the medical history of the child that may have a bearing upon test performance, i.e., severe head injury, encephalitis, epilepsy, etc.?) Use reverse side of form if additional space is needed.

____

Other - (Information regarding family background, social adjustment, behavioral problems, etc., which may be significant.) Use reverse side of form if needed.

____

REFERRED BY:____ TITLE:____
(Print or type name) (Supt., Prin., etc.)

MAILING ADDRESS____ ZIP____

TELE. NO.____ DATE____ SIGNATURE____

(Space below for use by Div. of Pupil Personnel Services, Examiner, or Coordinator.)

NAME OF CHILD____ REFERRED BY____

CONTACT MADE WITH REFERRING AGENCY____ SCHEDULED FOR EVALUATION____

COMMENTS____

EXAMINER____ COORDINATOR____

D41-21

Charles R. Logan
State Psychologist

DEPARTMENT OF PUBLIC INSTRUCTION
DIVISION OF PUPIL PERSONNEL SERVICES
804 North Euclid
Pierre, South Dakota 57501

Robert L. Muckins
State Director

SEPS-2
Rev.

REPORT OF PSYCHOLOGICAL EVALUATION

(These materials are confidential and for professional use only.)

IDENTIFYING DATA:

FULL NAME________________________ BIRTHDATE__________

AGE______________ GRADE________ DATE OF EXAMINATION__________
(In years and months)

PARENT'S FULL NAME________________________

ADDRESS______________ ______________ ______________
(Street No.) (City) (County)

REASON FOR REFERRAL: ________________________

CERTIFICATION: On the basis of this evaluation it is believed that the above-named person qualifies as an "exceptional" child according to SDC 1960, Supp. 15.3004, as amended:

YES_____ NO_____ UNDETERMINED_____. This individual should be considered for admission to:

(1) _____ Special Education Program--Educable
(2) _____ Special Education Program--Trainable
(3) _____ Special Education Program--Other (specify)__________________

REPORT OF EXAMINATION:

(REPRODUCED FROM STATE FORM)

CONFERENCE WITH PARENTS:

Yes_____ No_____

PSYCHOLOGICAL EXAMINER OR PSYCHOLOGIST:

Name (please type)________________________
____

D41-22

Signature________________________

DEPARTMENT OF PUBLIC INSTRUCTION
DIVISION OF PUPIL PERSONNEL SERVICES
804 North Euclid Avenue
Pierre, South Dakota 57501

NOTICE OF ENROLLMENT OR DISMISSAL

DISMISSAL:

Name of student ______________________________

Date Dismissed ______________ Classroom Teacher ______________

Reason for Dismissal ______________________________

____

Comments (Recommendations for future placement, etc.) ______________

____

= =

(REPRODUCED FROM STATE FORM)

ENROLLMENT:

Name of Student ______________________________

Date Enrolled ______________ Classroom Teacher ______________

Psychological report on file with Division ______________.

Psychological evaluation attached ______________. (A child should not be placed in a special education classroom for mentally handicapped unless recommended by a qualified psychological examiner. If you do not have a psychological report, a request should be made to the Division of Pupil Personnel Services so that arrangements may be made to have the child tested.)

If a child is being placed in a program for physically handicapped, Section V of the SE-1 form must be completed and signed by a qualified physician.

+ +

SCHOOL ______________ ADDRESS ______________

SIGNED ______________

TITLE ______________

PLEASE SEND ONE COPY TO THE ADDRESS AT THE TOP OF THIS FORM.

SOUTH DAKOTA
Dept. of Public Instruction

School # ______ 16

School Dist. # 10 ______ 14
Sch. Yr. 19__-__

Sheet ______
of ______

Personnel Record

	1 SOCIAL SECURITY NO.	2 LAST NAME	2 FIRST NAME	2 MIDDLE INITIAL	3 SEX	4 MARITAL STATUS	5 DATE OF BIRTH
PREPRINTED							
SHOULD READ							
	1 9	17 28	29 36	37	38	39	40 45

	6 HIGHEST ED. LEVEL	7 INSTITUTION - FIRST DEGREE	8 YEAR OF FIRST DEGREE	9 INSTITUTION - HIGHEST DEGREE	10 YEAR OF HIGHEST DEGREE	11 TOTAL SEMESTER HOURS	12 YEAR LAST CREDIT EARNED	13 FULL TIME EQUIV.	14 EMPLOY-MENT PREV. YEAR	15 EMPLOY MENT STATUS
PREPRINTED										
SHOULD READ										
	46	47 52	53 54	55 60	61 62	63 65	66 67	68 70	71	72

	16 CONTRACT PERIOD	17 REGULAR SALARY	18 ADDITIONAL SALARY	19 LOCAL EXP.	20 STATE EXP.	21 TOTAL ED.	22 PRE-VIOUS TITLE	23	24
PREPRINTED									
SHOULD READ									
	73 75	10 14	15		22 24	25 27	28 29		

(REPRODUCED FROM STATE FORM)

	25 POSITION TITLE	26 PROGRAM AND SUB-PROGRAM	27 SCOPE OF ASSIGN-MENT	25 POSITION TITLE	26 PROGRAM AND SUB-PROGRAM	27 SCOPE OF ASSIGN-MENT	25 POSITION TITLE	26 PROGRAM AND SUB-PROGRAM	27 SCOPE OF ASSIGN-MENT
PREPRINTED									
SHOULD READ									
	40 41	42 44	45	46 47	48 50	51	52 53	54 56	57

Only THE HOLDER OF A VALID SOUTH DAKOTA TEACHER CERTIFICATE SHOULD COMPLETE THE SECTION BELOW:

	28 CERTIFICATE NUMBER	29 DATE ISSUED	30 DATE EXPIRES	31 CLASSIFICATION OF CERTIFICATE
PREPRINTED			07 01	
SHOULD READ				
	58 63	64 69	70 71	72 79

	32 ENDORSEMENT OF CERTIFICATE	33 LEVEL OF TEACHING VALIDITY	34 AREA OF MAJOR ACADEMIC PREPARATION (BACHELOR'S DEGREE)
PREPRINTED			
SHOULD READ			
	10 19	20 23	24 33

35
TEACHING ASSIGNMENTS

PREPRINTED							
SHOULD READ							
	34 39	40 45	46 51	52 57	58 63	64 69	70 75

D41-24

FORM # 68-32-1

TABLE 1

SUMMARY OF DATA DEVELOPMENT STATUS

SOUTH DAKOTA

DATA ELEMENTS			PUBLIC SCHOOLS CURRENT STATUS	PUBLIC SCHOOLS METHOD OF DEVELOPMENT	PUBLIC SCHOOLS SOURCE OF DATA	STATE RESIDENTIAL/INSTITUTIONAL SCHOOLS CURRENT STATUS	STATE RESIDENTIAL/INSTITUTIONAL SCHOOLS METHOD OF DEVELOPMENT	STATE RESIDENTIAL/INSTITUTIONAL SCHOOLS SOURCE OF DATA	PRIVATE SCHOOL DATA
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Now exists for most handicaps. Can be developed for speech and hearing.	Birthdate may be added to form now used for speech	Forms SE-1 and SE-2. Modified Forms SH-1 and LH-1 for speech	Data exists at each individual school. Can be supplied to Special Ed. on request	Forms and instructions to record data may be provided by Special Education	Pupil records maintained by individual schools	No data exists at state level. May be requested from each school by Special Education
		HANDICAPPING CONDITION							
		EDUCATION PROGRAM							
	ON WAITING LIST	AGE	Present diagnostic file could be used in calculation.	Comparison of enrollment and diagnostic records to determine waiting lists	Diagnostic records for most handicaps. Waiting lists will be requested for speech	Very little data expected because most children not required to wait			Special Education diagnostic file may be used in calculations
		HANDICAPPING CONDITION							
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE		Number of diagnoses during year could be tabulated	Diagnostic records for most handicaps. Modified Form SH-1 for speech	May be requested from each school			
		HANDICAPPING CONDITION							
	INTRA-STATE TRANSFERS	AGE	Not now available, but can be developed	Dismissal Form now used may be modified to show reasons for terminations. Form SH-1 may be modified for speech handicap	Modified Notice or Dismissal Form. Modified Form SH-1 for speech handicaps.				May be requested from each school
		HANDICAPPING CONDITION							
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE							
		HANDICAPPING CONDITION							
		REASON							
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			May be requested by Special Ed.		Statistical services, Dept. of Public Inst.				
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Exists for most handicaps. Can be developed for others	Addition of age data on speech reports	Enrollment forms used by Special Education	May be calculated from enrollment data	Forms and instructions to record data may be provided by Special Education	Pupil records maintained by individual schools	May be calculated from enrollment data
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Data now available		Guidelines provided to programs by Special Education	May be requested from each school			May be requested from each school
		EDUCATION PROGRAM							
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE					Printouts from Dept. of Public Inst.				

TENNESSEE STATE ANALYSIS REPORT

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TENNESSEE STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of this Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Tennessee, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 2 at the end of this report.

II. SUMMARY

There does exist in Tennessee an information flow which provides statistical information that is summarized in the Annual Statistical Report of the Department of Education. However, many of the data elements vital to the support of the Manpower Requirements Projection Model are not currently either collected and/or summarized by the state special education staff. Enrollment data summarized by handicapping condition, single year of age, and special education program category; waiting list; actual annual incidence occurrence; and attritions by cause records are not maintained at state level.

Many of these data elements could be included in existing reporting formats without disrupting the present reporting mechanism. However, the summarization and processing of the data would require either additional special education staff or an incorporation of some automated data processing techniques in the information system.

Computer capability and technical support are available within the Department of Education.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The Department of Education, headed by an appointed Commissioner, includes the area of Programs for Exceptional Children in its Division of Instruction. The department deals directly with the 149 districts in the state, comprising 95 county districts, about 40 independent cities, and the remainder special districts; all districts are administrative equals. The state is divided into six regional reporting areas, into some one of which data is generally first sent before statewide compilation. As these regional offices exist primarily for administrative purposes, they will not be further described in this report.

The area of Programs for Exceptional Children approves, monitors, and collects certain data about all publicly assisted special education classes operated in the public school system. When curricular control was granted to the state education department in 1951, it transferred that power (including special education curricular control) to the districts. The Programs for Exceptional Children group does, however, retain responsibility for providing advice, guidance, and counseling to the districts on curriculum as well as all other operating areas. Approval of teacher special education credentials is another responsibility of the group.

The Tennessee Schools for the Deaf and the Blind are funded directly by the state legislature but are otherwise autonomous; they are organizationally attached to (but are not part of) the Department of Education, to satisfy the requirement that the state operations be grouped in departments.

The Department of Mental Health includes the Mental Retardation Division, with three hospital-schools, and Project ReEd, a statewide network of schools for emotionally disturbed; the several hospitals for mentally ill do not offer special education programs.

In the Department of Public Health, the Crippled Children Service provides, and maintains records of, general diagnostic and treatment services, but does not provide education services.

The Vocational Rehabilitation Division in the education department has an Area of Special Programs; each of the 22 vocational rehabilitation counselors works with up to 200 special education pupils until each pupil has found employment, but no academic education program is intended.

The organizational arrangement of these agencies responsible for the education of handicapped children in Tennessee is illustrated in the chart shown in Figure 1. It is not intended to include all of the many other functions which each agency performs.

IV. DATA ELEMENT EVALUATION

Some specific data elements are necessary to the use of the Manpower Requirements Projection Model. The information which these data elements provide may also be very useful to the Program for Exceptional Children for other operational analyses. These data elements and their potential sources are discussed in the following paragraphs.

Number of Children Identified As Needing Special Education

There are two categories of information pertinent to the identified handicapped child population: those enrolled in special education programs and those diagnosed as needing special education services and waiting to be enrolled.

Enrolled. Enrollment data elements required for model application include summaries by single year of age, handicapping condition, and special education program category (residential special classes, special classes in regular school, itinerant programs, etc.).

The special education program categories in Tennessee include residential schools (state schools for the deaf and blind), special education day classes serving specific handicapping conditions, itinerant programs including homebound and hospital services, and a program for the speech and hearing handicapped, which may or may not be itinerant.

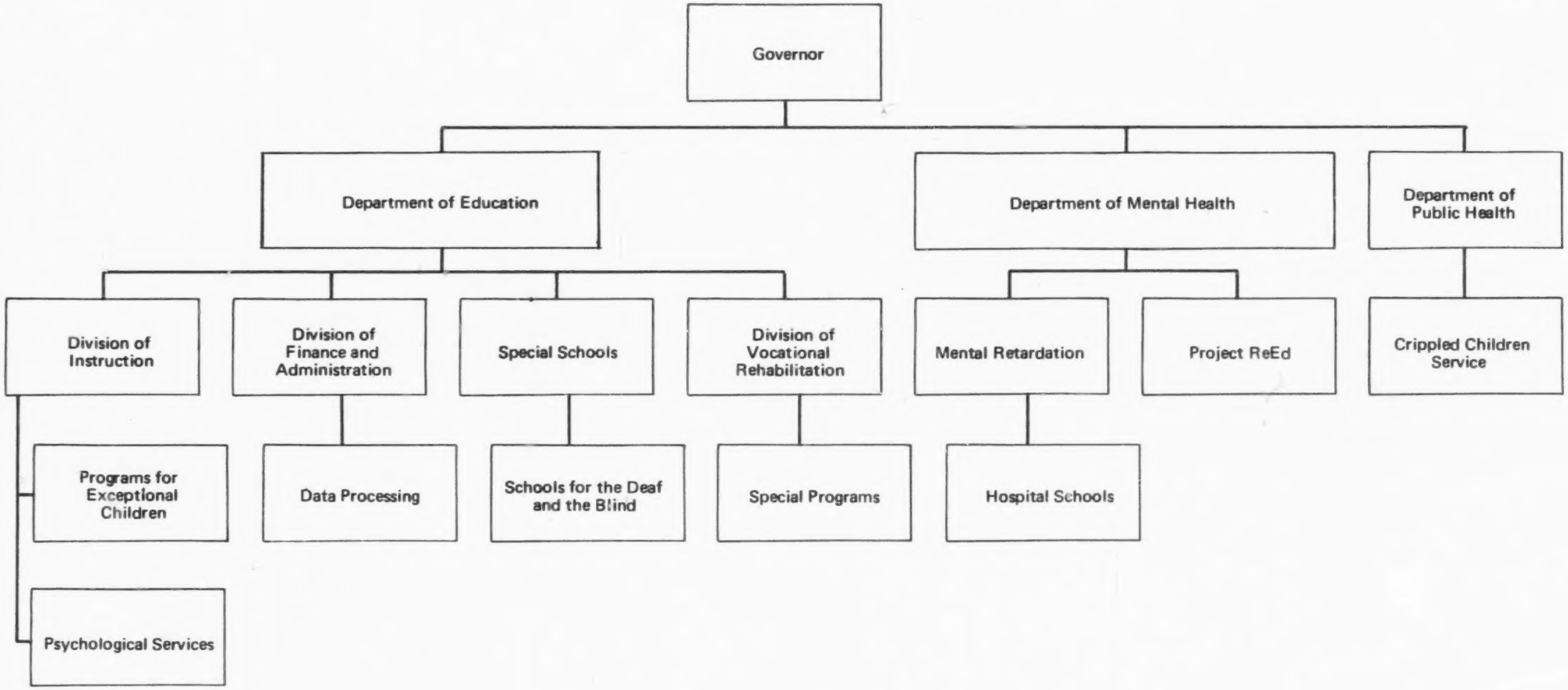
Governor
Department of Education
Department of Mental Health
Department of Public Health
Division of Instruction
Division of Finance and Administration
Special Schools
Division of Vocational Rehabilitation
Mental Retardation
Project ReEd
Crippled Children Service
Programs for Exceptional Children
Data Processing
Schools for the Deaf and the Blind
Special Programs
Hospital Schools
Psychological Services

FIGURE 1 ORGANIZATIONAL RESPONSIBILITY FOR THE EDUCATION OF HANDICAPPED CHILDREN IN TENNESSEE

Presently, enrollment data for public school classes is collected on two forms, which are prepared by the classroom teacher at different times of the year. Form SE-150A, Preliminary Report Establishing Eligibility Of Children Enrolled in Special Education Classes, is prepared and submitted "not later than one month after beginning of school year." The other form, SE-150B, Annual Report of Children Enrollment in Special Education Classes is "due at the close of the school year." These forms are shown on page D42-21 of Section X.

Form SE-406 records the annual enrollment for children taught on the homebound program, Form SE-401 is used for the hospital teachers enrollment annual report, and Form SE-295 is the annual report of the teacher of speech and/or hearing programs. These forms are shown in a montage on page D42-22 of Section X. Since the enrollment for each of these special education program categories is reported on a different form, the reporting format itself serves as an identification of the program category. Data from the Schools for the Deaf and the Blind, other state agencies, and private agencies are not currently reported to the Special Education Office.

The referenced forms provide all of the basic enrollment data (age, handicapping condition, and special education program category) required for model application. However, as previously mentioned, the model requires only summarized data, that is, totals by age, handicapping condition, and program category. This data is not presently summarized. The summarization of each individual teacher report at state level would impose an excessive burden on the state special education staff. Some recommendations which may make this data accumulation and summarization more feasible are contained later in this report in Section VIII, RECOMMENDATIONS.

Waiting List. The number of children on special education waiting lists, the second component of the identified handicapped child population, should be complete at the local education agencies operating special education programs, but none of the local agencies reports this information to the state. If the local districts can be convinced of the value of their and the state's keeping track of this data for planning purposes, a request for the number of children on that waiting list, by age and handicapping condition at the beginning of the year, could be made on a simple matrix form.

A set of similar matrix forms could be used to request enrollment and waiting list data from the private schools and the state schools, hospitals and institutions operating special education programs. A validity problem may arise with the latter data element if a large proportion of the children on the waiting lists for state-operated programs are being served in local programs or have moved out of the state. If it is determined that this is the case, the request for state waiting list data could be dropped.

Unidentified Handicapped Population

Various methods are used in Tennessee to estimate the unserved handicapped child population. Annually the Title VI Tennessee State Plan contains estimates, based upon national prevalence rates, of additional children requiring service, but these are not diagnosed children awaiting special education services. Various state agencies such as the Crippled Children Service, Mental Health Centers and Clinics, and the Physical Therapy Service offer diagnostic services. The Crippled Children Service is chartered "to locate and maintain a register of children in Tennessee from birth to 21 years of age who are suffering from handicapping conditions; to provide comprehensive medical care. . . . " According to the Service, 75% of all physically handicapped children are known to them (supported by a Chattanooga survey). However, by no means are all of these children handicapped in such a manner that they require special education, so that the Services' register (for physical disabilities only) is also insufficient as a waiting or referred list.

Since no complete and systematic diagnostic referral system now exists at the state or local level in Tennessee, data on the unidentified handicapped child population will probably have to be estimated, using prevalence rates that the Special Education staff currently uses. This estimation of the unidentified population would be used rather than an estimate of the diagnostic waiting list and the potential undiagnosed population.

Using prevalence rates is an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations.

Number of Children Moving Into/Out of Identified Handicapped Child Population

The movement of children within the handicapped child population needs to be traced, to determine the effects of annual incidence, transfer, and attrition on the service required. Currently no data is collected or accumulated which will provide the necessary information.

Newly Diagnosed. The purpose of obtaining information pertaining to children newly diagnosed in a year is to develop some information on the annual incidence rates.

Due to the lack of a structured diagnostic reporting system (i.e., all or most of the diagnoses reported to a central source, e.g., the local school district), data on the number of children newly diagnosed as needing special education cannot now be completely and accurately collected in Tennessee.

Where diagnosis and identification are limited to the capability to serve, a count of new enrollees in special education programs is equivalent to a count of newly diagnosed. However, this is a minimal condition and provision should be made for collecting newly diagnosed data pending the time when diagnosis is less restricted by service capability, funds, or availability or qualified personnel. The local district is recommended as the central source of this data because it is there that a child is processed to determine his eligibility for special education and admitted into a program.

Intrastate Transfers. Transfers within the state of children receiving special education services, while they are, in effect, an attrition from the specific program in which the child is enrolled, do not change the state's total handicapped child population. These, therefore, should be accounted for separately so as to prevent the counting of a transfer from one LEA as a new enrollee in another LEA, thus creating an error in annual incidence count. An analysis of transfers could also reveal the trend of movement according to the quality of special education services offered by various localities. Tennessee does not currently trace or record the intrastate transfer of its special education students.

Attritions. Attritions, along with outgoing intrastate transfers, constitute the deductions from the handicapped child population of an LEA. While attrition data, as such, is not currently accumulated or recorded by cause, the annual reports do contain data concerning the date that instruction ended. This can be a basis for the development of attrition data.

Section VII, RECOMMENDATIONS, contains some suggestions on how the data on newly diagnosed, intrastate transfers, and attritions may be collected, with modifications to existing formats, but essentially within the current data collection process.

General Child Population Projections

The projections of general child populations by individual year and single year of age for the period of time for which forward projections will be wanted, are a model data element requirement. These are the values that will be applied to validated incidence rates to determine the forward projection of the handicapped child population.

Each Annual Statistical Report of the Department of Education includes a 7-year summary of the number of children living in Tennessee, by year of birth. By applying the "aging" technique (present 8-year-olds would be the 12-year-olds in the fourth year of projection) and a general population migration/immigration/mortality factor, adequate general population projections should be possible.

Data Used to Simulate Special Education Requirements

The Manpower Requirements Projection Model has the capability of simulating manpower requirements based upon selected variations of input data. Two such data elements are education program mix trends and personnel/pupil contact ratios. A simulated change in education program mix (for example, returning blind and deaf children to regular classes supplemented by resource room work instead of special full-time classes) can be analyzed for its effect on manpower requirements. A proposed change in teaching technology that could affect the teacher/pupil contact ratio can be simulated to determine its effect on manpower requirements.

Education Program Mix Trends. The staff of Special Education consultants has the capability to provide the data needed to simulate special education conditions, such as the number or proportion of enrolled children being served in each special educational category, by target group (an educationally meaningful combination of handicapping condition and education level).

Personnel/Pupil Contact Ratios. Personnel/pupil contact ratios are prescribed in the Tennessee State Board of Education publication "Rules, Regulations and Minimum Standards." These ratios are established for each handicapping condition and are expressed as pupils per position for classroom work or caseload for itinerant programs.

Number and Type of Special Educators Employed

The determination of special education manpower gap (the difference between projected requirements and present staff) requires the aggregation of data pertaining to the number of qualified special education personnel currently employed and their occupational specialty (Teacher of the Blind, Teacher of the Mentally Retarded, Speech and Hearing Therapist, etc.).

Tennessee requires teacher certification in specific handicapping areas and has available employment data by area of certification.

V. PROCESSING POTENTIAL

Hardware

The Department of Education has for its exclusive use, on a no-charge basis, a 32K IBM 360/30; it also has a unit on-line to a computer at the University of Tennessee and has access, when necessary, to a 262K IBM 360 in Memphis; a second unit is on-line to the Memphis computer.

Keypunching facilities are available at each of four locations in the education department.

A FORTRAN compiler is used at the installation and sufficient memory capacity is available at the Memphis site to utilize the Manpower Requirements Projection Model.

Personnel

Both the Special Education staff and the data processing staff are quite capable of handling all aspects of the Manpower Requirements Projection Model.

VI. ADDITIONAL FACTORS

In Tennessee the socio-economic variations by geographic area markedly affect the local incidence rates. For this reason the need for accurate local data takes on added significance if statewide special education planning is to be effective.

VII. RECOMMENDATIONS

The objective of the Manpower Requirements Projection Model is to provide the state with additional information to plan and implement its special education programs. Although the development of the model was Federally sponsored, it is designed for use by the individual state. As such it requires data elements that express each state's unique special education characteristics.

This section contains recommendations which would, upon implementation, provide for the information flow of those data elements necessary to the support of the Manpower Requirements Projection Model in Tennessee and add to the quantity of information available for special education program management. The following information, which is not currently recorded, would become available at state level.

- Enrollment summaries by handicapping condition, single year of age, and special educational program category
- Waiting list summaries by handicapping condition and single year of age
- Record of annual incidence by handicapping condition and single year of age
- Attrition data by handicapping condition and cause.

Those recommendations critical to model implementation are:

a. Consider a modification to the existing reporting formats SE150-A and SE150-B, as shown in Figure 2. The main thrust of the modification is a combination of both forms into one form which could be initially prepared to coincide with Form SE150-A requirements and could be recycled to fulfill

Name	Birth Date	Sex	Psychological Information			Medical Information		Enrollment		Total Days		Attrition		Teacher Recommendation
			Date Exam	I.Q.	Level of Function	Date Exam	Diagnosis	Date	Status	Enrolled	Present	Date	Cause	
1														
2														
3														
4														
5														
6														
7														
8														
9														

FIGURE 2. SUGGESTED MODIFICATION TO FORMS 150-A/150-B

the Form SE150-B objectives. The advantages of this procedure are that it reduces the repetition of data on different forms, the recycling serves as a reminder of data due, and data quality is improved because of the continuity inherent in the recycled forms (each child must be accounted for).

There are also some additional columns provided for the recording of enrollment status and attrition causes. The use of codes, such as are listed in Table 1, may be useful in recording this data.

At the local level it may be convenient to use matrix formats such as are shown in Figures 3 and 4 for summarizing enrollment and attrition data by single year of age, handicapping condition, and special education program category.

b. The establishment of waiting list information is necessary to the future determination of the level of participation, i.e., the amount of service being supplied to the number of children identified as needing it. Obviously, if children are diagnosed and identified as handicapped only when the required service is available, there is no backlog, no waiting list, and a lower incentive for planning and funding the expansion necessary to service those children awaiting diagnosis. If the local education agencies can be convinced of the value of recording waiting list and newly diagnosed children, this information along with enrollment data, will provide the necessary identified handicapped child population data. The sample format shown in Figure 5 could be used to record this data.

c. A program should be initiated to evaluate the current prevalence rates, which are based upon national rates, and to validate them with actual data. This should be a continuing process which will produce better and more accurate results with each data cycle.

In addition to the foregoing specific recommendations, the following suggestions are made pertaining to the overall information flow process:

TABLE 1

ENROLLMENT AND ATTRITION CODES

Enrollment	
New enrollment (first time in program, or interstate transfer)	E1
Transfer from another class within LEA	E2
Intrastate transfer (transfer from another LEA)	E3
Continuing in program from previous year	C
Attrition	
Pupil returned to regular education procedure	A1
Transfer to another special education class within LEA	A2
Transfer to another LEA	A3
Mortality	A4
Left special education programs for other reasons (dropout, graduation, move out of state, etc.)	A5

NOTE: The state may wish to utilize different attrition causes or add to the above list to permit a more detailed analysis.

Date	Local Education Agency
Handicap Condition	Location

Special Education Program Type Code ____________________

Enrollment Category	Age																Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Continue in Program From Last Year																	
New Enrollee or Interstate Transfer																	
Intrastate Transfer From Another LEA																	
Total																	

Special Education Program Type Code ____________________

Enrollment Category	Age																Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Continue in Program From Last Year																	
New Enrollee or Interstate Transfer																	
Intrastate Transfer From Another LEA																	
Total																	

Special Education Program Type Code ____________________

Enrollment Category	Age																Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Continue in Program From Last Year																	
New Enrollee or Interstate Transfer																	
Intrastate Transfer From Another LEA																	
Total																	

FIGURE 3. SPECIAL EDUCATION ENROLLMENT SUMMARY REPORT

Date	Local Education Agency	Location

Handicap Condition ____________________

Attrition Categories	Age																Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Returned to Regular Education Procedure																	
Intrastate Transfer to Another LEA																	
Mortality																	
Moved out of State																	
Other (Dropout, Graduation, etc.)																	
Total																	

Handicap Condition ____________________

Attrition Categories	Age																Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Returned to Regular Education Procedure																	
Intrastate Transfer to Another LEA																	
Mortality																	
Moved out of State																	
Other (Dropout, Graduation, etc.)																	
Total																	

FIGURE 4. SPECIAL EDUCATION ATTRITION SUMMARY REPORT

Report Date (fall of each year) LEA ____________

Handicap Condition	N.D. = newly diagnosed W.L.T. = waiting list total	Age					
		4	5	6	7	8	. . . Etc.
Emotionally Disturbed	N.D.						
	W.L.T.						
Educable Mentally Retarded	N.D.						
	W.L.T.						
Trainable Mentally Retarded	N.D.						
	W.L.T.						
Etc.							

FIGURE 5. NEWLY DIAGNOSED AND WAITING LIST REPORTING FORMAT

The development of an information flow pertaining to the handicapped child population in Tennessee involves more than the determination of data element sources and the prescription of a flow path. The concept of a centralized data base, in which data would be provided in a compatible format so that it can be accumulated and processed for output in a format convenient to the user, must first be accepted by those who would benefit most by its availability. Those beneficiaries would be the supervisors and specialists in various state agencies, and perhaps the legislature, who would be able to obtain consolidated and coordinated data pertaining to either specific or summarized handicap education areas.

The Tennessee agencies serving the handicapped child population have a current need for coordinated special education information. In the future, as the number of children served increases and the services available to them are expanded, the requirement will become even more essential to the efficient administration of the state's handicapped child education programs.

The development of a unified information flow that will encompass the total handicapped children services sphere will be needed. Before the need for information becomes critical, the steps necessary to obtain it should be initiated. This is a prime reason for initiating the development of information reporting procedures as soon as possible.

The involvement of different state agencies in providing special education services adds to the complexity of creating a unified information flow. For this reason it is recommended that a special education flow system be developed in two phases.

The first phase is concerned with the Division of Instruction itself. A procedure should be developed within the agency that would provide for the consolidation of all special education information into one data bank. Individual specialists could then extract that information which is pertinent to their operations, and in addition, the Division could extract the aggregated information which it requires to plan and administer the overall operation. The second phase involves the incorporation of handicapped child information from other state agencies into one basic data bank.

Some of the steps pertinent to the implementation of the first phase are as follows:

a. The Division may not currently have the skills and/or capacity within its present staff to do the necessary systems analysis, design coordination, and forms design. This capability must be available to the Division, either through addition to the staff, through loan from another agency, or from consultant sources. Automated data processing is advisable for efficient utilization of the data. It is difficult, if not impossible, to sort, rearrange, extract, and analyze the information existing on the original individually prepared input sheets.

b. Computer programs should be designed that will record this data on magnetic tape and permit its extraction on computer produced reports. The Division staff would be expected to specify the output requirements for the printout, but programming capability should be provided by the computer support agency (possibly the Data Processing Center). The net effect on program supervisors and specialists will be that less time will be spent on the clerical effort of accumulating data and more time will be available for the professional aspects of their job.

The second phase in the implementation of a total information reporting system involves coordination with, and the cooperation of, other state agencies involved in the education of handicapped children. It would probably be advisable to have the reporting system functioning within the Division of Instruction before enlisting the participation of other agencies. However, consideration of their potential data requirements when designing the reporting formats and the data bank record could facilitate their entry into the system when the appropriate time comes.

The object of other agencies' participation in the reporting system is to make available data that will represent the entire handicapped child educational area in the state. This participation will make manpower projections more representative of the state's total requirements, and, because of the availability of consolidated data, will be useful to both the legislature and agency administrators in planning the overall direction of state's effort. This does not mean that any one agency would be assuming the functions of another, because each agency would be able to extract from the data bank that information which is pertinent to its own operation.

It may be possible for other state agencies and private schools to use forms similar to those used for public school special education reporting. Obviously, the implementation of such a reporting system will require a considerable coordinating effort. Coordination at the commissioner and director levels will be necessary to resolve the policy variables between agencies, and cooperation at the superivsory level will be required to resolve the "nuts and bolts" problems (reporting formats and procedures, output report formats, priorities, etc.).

VIII. RESOURCE REQUIREMENTS—MANPOWER

The Special Education staff, while fully capable of utilizing the simulative capabilities of the model and analyzing the results, does not have the manpower capability either to design an information flow system or to perform the data element evaluation, data source determination, input forms design, input data preparation, programming, and output format design required for information system implementation. Such assistance would have to be either added to the staff or provided by a source outside the division. It is estimated that this implementation phase for a system internal to the Division of Instruction would require about 2 man-months of special education staff effort, 3 man-months of systems analyst time, 1 man-month of programming time and 1 man-month of clerical effort over a period of 24 months. If the division were to be centrally responsible for coordination of the statewide system for all agencies, an additional man-month of special education staff time, one man-month of systems analyst effort, and a man-week of programming time over a period of 12 months would be required. The capability of the implementation personnel should also include the ability to analyze system requirements, organize and coordinate the effort of contributors, design formats, and prepare procedures and instructions.

Maintenance of the system (coordination of inputs, quality control, improvements, preparation of special report specifications, etc.) will probably require approximately $1\frac{1}{2}$ man-months of total combined skills per year.

IX. PERSONS INTERVIEWED

The persons interviewed by the ORI (Leasco) representative, Mr. Ted Jungreis, during the week of October 27, 1969, were:

Vernon Johnson	Coordinator, Programs for Exceptional Children, Department of Education
Garland Cross	Director, Program Planning, Programs for Exceptional Children
Charles MacDonald	Director, Project ReEd, Department of Mental Health
Lee Goodner	Coordinator, Area of Special Programs, Vocational Rehabilitation Division, Department of Education
Dr. Heintzelman	Director, Crippled Children Service, Department of Public Health

X. CURRENT REPORT FORMATS

Some of the current reporting formats used in Tennessee are listed below and reproduced in the following pages.

Montage

Form 150A	Preliminary Report Establishing Eligibility of Children Enrolled In Special Education Classes
Form 150B	Annual Report of Children Enrolled in Special Education Classes

Montage

Form SE 295	Annual Report of Teacher of Speech and/or Hearing
Form SE 401	Annual Report of Hospital Teachers
Form SE 406	Annual Report of Children Taught on Homebound Program

STATE OF TENNESSEE
DEPARTMENT OF EDUCATION
DIVISION OF INSTRUCTION – AREA OF SPECIAL EDUCATION

Form SE-150 A -- 7/69

PRELIMINARY REPORT ESTABLISHING ELIGIBILITY OF CHILDREN ENROLLED IN SPECIAL EDUCATION CLASSES

NOTE: To be completed in triplicate. Send original and one copy to Regional Office of Special Education. Keep one copy. Due not later than one month after beginning of school year.

System ______________________
School ______________________
Principal ______________________
School Year ______________________

Type of Class ______________________
Level of Class ______________________
Teacher ______________________
Attendant ______________________

Child's Name in Full (List Alphabetically)	Birth Date	Sex	Psychological Information			Medical Information		Additional
			Last Date Examined	I. Q. of Child	Level of Functioning	Last Date Examined	Medical Diagnosis	Handicaps
1.								
2								
3.								
4.								
5.								

Form SE-150B – 7/69

ECIAL EDUCATION

ANNUAL REPORT OF CHILDREN ENROLLED IN SPECIAL EDUCATION CLASSES

be completed in triplicate. Send Original and one copy to Regional Office of Special Education. Keep one copy. Due at the close of school year.

System ______________________
School ______________________
School Year ______________________

Type of Class ______________________
Teacher's Signature ______________________
Date ______________________

Child's Name in Full (List Alphabetically)	Birth Date	Date Enrolled / Date Left Class	Total Days Enrolled	Total Days Present	Teacher Recommendation and/or Disposition
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					

(REPRODUCED FROM STATE FORM)

To be completed by Regional Office of Special Education:

Number of Children ______________

Recommended for Approval:

Regional Supervisor ______________________
Date: ______________________

____
Signature of Superintendent or Representative

Date: ______________________

SE 295
Rev. 9/67

STATE OF TENNESSEE
DEPARTMENT OF EDUCATION
DIVISION OF INSTRUCTION – AREA OF SPECIAL EDUCATION

Name of Teacher ____________________

School System ____________________

ANNUAL REPORT OF TEACHER OF SPEECH AND/OR HEARING

Address ____________________

BEGINNING ____________________ ENDING ____________________

Name of School ____________________

(1)	(2)	(3)	(4)	(5)			(6)	(7)					(8)
				Services Completed				Record of Instruction					
Name of Child	Sex	Birth Date	Grade	Speech Test	Audiogram	Otologist Rpt.	Diagnosis of Speech and/or Hearing Disorder	Date Begun	Date Ended	No. Therapy Sessions per Week	Total Hours Taught per Wk.	Total Hours Taught For Year	Disposition
1.													

Form SE-401-Rev. ./66

Division of Instruction – Area

ANNUAL REPORT OF HOSPITAL TEACHERS

SCHOOL SYSTEM ____________________

NAME OF TEACHER ____________________

Year beginning __________ 19__, Ending __________ 19__.

HOSPITAL SCHOOL ____________________

To be completed in triplicate for each teacher. Two copies to Regional Office, one copy for Superintendent. (Due at close of current school year.)

Name of Child	School System	School	Grade	Sex	Birth Date	Medical Diagnosis	Date Instruction Began	Date Instruction Ended	Number Sessions	Total Hours Taught
1										

Form SE-406 Rev. 4/68

Division of Special Education

Name of Teacher ____________________

Address ____________________

School System ____________________

ANNUAL REPORT OF CHILDREN TAUGHT ON HOMEBOUND PROGRAM

Length of school term __________ days.

Year beginning __________, 19 __, Ending __________, 19__

To be completed in triplicate for each teacher. Two copies to Regional Office; one copy for Superintendent. (Due at close of current school year.)

Name of Child (List Alphabetically)	Birth Date	Sex	Grade	Medical Diagnosis	Date Instruction Began	Date Instruction Ended	Length of Instruction Total Hours Child Taught during current school year	Disposition or Recommendation
14.								

I certify that the above is true and correct.

____
Signature of Superintendent or Designated Representative

Date ____________________

To be completed by Regional Office of Special Education:

Number of eligible children ____________________

Signature of Supervisor ____________________ Date __________

(REPRODUCED FROM STATE FORM)

TABLE 2
SUMMARY OF DATA DEVELOPMENT STATUS
TENNESSEE

DATA ELEMENTS			PUBLIC SCHOOLS			OTHER STATE FACILITIES AND PRIVATE SCHOOLS		
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Available but not summarized	Summarize using matrix formats (see examples in Recommendations Section)	Teacher/school district	Available at individual facility or school	Utilize public school formats or adaptations most convenient to the source facility	Individual facility or school
		HANDICAPPING CONDITION						
		EDUCATION PROGRAM						
	ON WAITING LIST	AGE	Not available	Maintain count at local level and report annually to state level	Local district superintendent	Availability unknown		
		HANDICAPPING CONDITION						
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE						
		HANDICAPPING CONDITION						
	INTRA-STATE TRANSFERS	AGE		Modify Forms 150A and B (see Figure 2) and summarize using matrix formats	Teacher/school district			
		HANDICAPPING CONDITION						
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE						
		HANDICAPPING CONDITION						
		REASON						
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Available		Annual Statistical Report			
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Available	Existing records and staff experience	Special Education staff			
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP			"Rules, Regulations and Minimum Standards"	Available	Request from facility or school	Individual facility or school
		EDUCATION PROGRAM						
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Available			Available		

TEXAS STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

TEXAS STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Texas, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 2 at the end of this report.

II. SUMMARY

Texas is currently receiving detailed data from the local school districts and general data from the other state agency providing special education services, but the set of data elements collected is incomplete for Manpower Requirements Projection Model needs. Since all of the detailed data needed is maintained at the local districts and the state schools and institutions, by using the good rapport and the existing data flow between the local and state data sources and the Division of Special Education upon which to build, Texas should have little problem developing a more complete and automated information system relating to the handicapped child population. A possible minor problem could arise in an attempt to develop a data flow between the local school districts who do not provide any special education services and the Division of Special Education. If the other Department of Educations efforts to develop a department-wide Management Information System do not conflict with the relatively independent development of a special education information system (which should be considered as a subsystem or a sub-subsystem within the MIS), such a system has a high probability of being developed and implemented in a relatively short period of time.

Either of the proposed information systems (a data summary system and a modified pupil accounting system) should result in successive improvements in the completeness and the accuracy of the data elements over time, with such validity being achieved within a few years at the most. Later documents pertaining to this project contain more information about methods which may be used to estimate some of the data elements until a good information flow is developed and validated.

The data processing hardware maintained by the Department of Education and available for use by the Division of Special Education has the capability of handling an automated special education information system containing the model input data processing program. With an inter-agency agreement, the Department of Mental Health and Mental Retardation's data processing hardware, which is capable of handling the programmed model, could be made available for lease by the Division of Special Education.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

Only local public special education and the two state schools for the blind and deaf fall under the purview of the Texas State Board of Education, a 21 member body elected by the Texas citizens. The Commissioner of Education of the Texas Education Agency, who is appointed by the Board, is the chief administrator and appoints all Deputy, Associate, and Assistant Commissioners. Responsibility for special education falls to the office of the Assistant Commissioner for Special Education and State Schools, with its Division of Special Education, the Texas School for the Blind, and the Texas School for the Deaf, all of which are located in Austin.

The Director of the Division of Special Education, Mr. Donald L. Partridge, has under him an Assistant for Planning and Evaluation, an Assistant for Program Development and Research and Title VI, and eight handicap area consultants. The responsibilities of this Division include developing special education program standards, assisting local school districts in establishing new programs according to the standards, and approving and overseeing the operation of the local programs. The program standards developed apply by law to all state-operated special education programs as well.

At the local level, most programs are operated within a school district; the remainder are countywide and bi-countywide Schools for the Deaf and Severely Hard of Hearing. Under contract from the Department of Health, the local school districts also operate the special education programs in state hospitals for TB and crippled patients. The local districts are served by 20 regional Education Service Centers, 13 of which have a full-time person in charge of special education. However, these service centers do not maintain pupil data records. The pupil file is kept at the local school district central office, headed by a superintendent who is elected by the local Board of Trustees. The current data flow (and line of responsibility) for all education is from the classroom teacher to the school building principal to the school district office to the state. It has been proposed that the regional service centers be made the focal point for data maintenance, but it does not appear that this will take place in the near future.

All other public special education in Texas is operated at the state level by the Department of Mental Health and Mental Retardation, which operates the State Mental Hospitals and the State Schools for the Mentally Retarded, and by the Texas Youth Council, which operates four correctional schools for delinquent boys and girls.

The organization chart depicting the foregoing description is presented in Figure 1.

Since the three state agencies responsible for public special education programs are independent, no formal responsibility links exist, and any interdepartmental liaison is informal and voluntary. Good communication now exists between the Director of the Division of Special Education and both the Associate Deputy Commissioner for Mental Health and the Assistant to the Associate Deputy Commissioner for Mental Retardation in the Department of Mental Health and Mental Retardation.

Nonpublic special education programs are free of any control by the state and local Boards of Education.

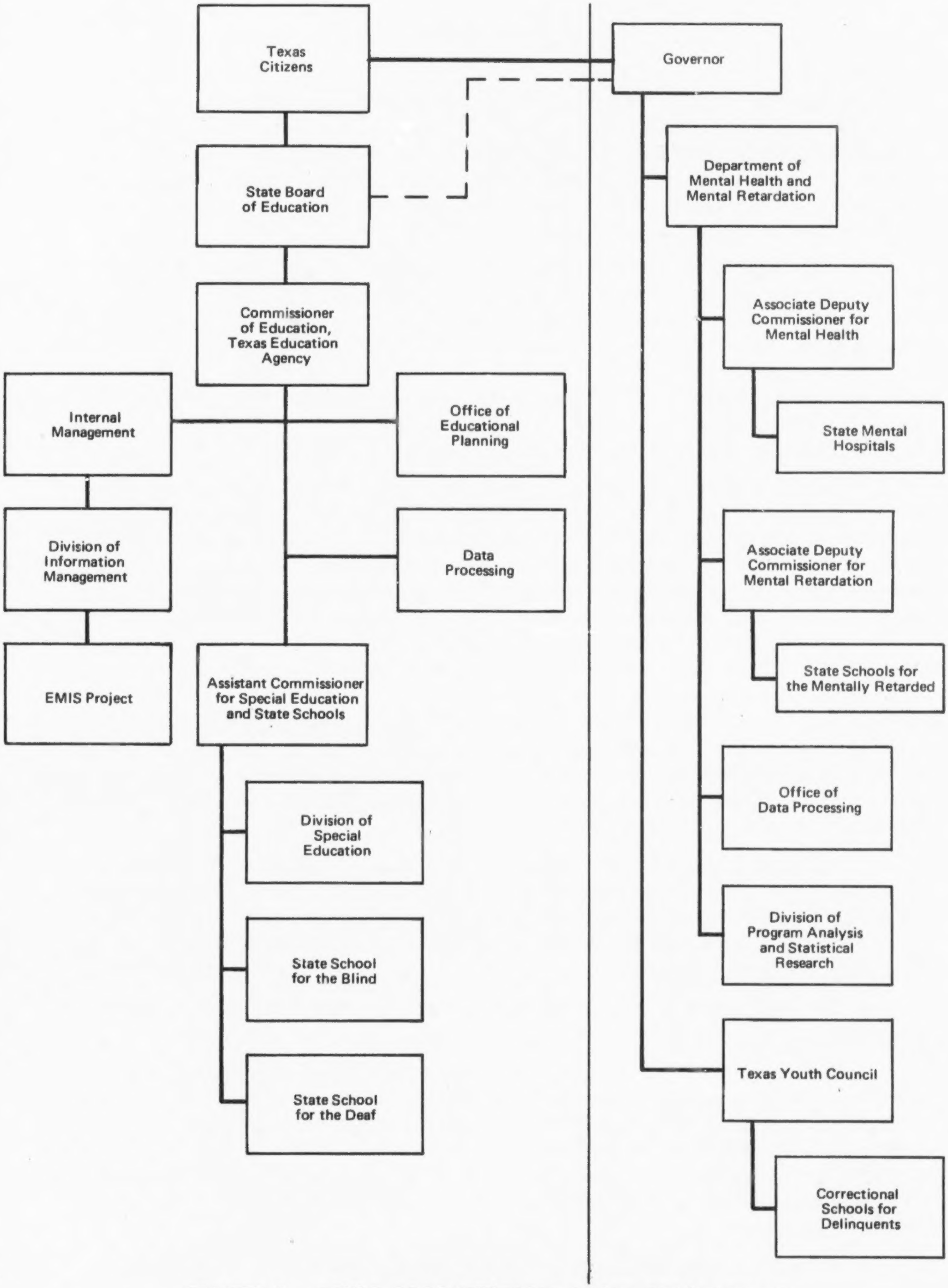
Texas Citizens
Governor
State Board of Education
Department of Mental Health and Mental Retardation
Commissioner of Education, Texas Education Agency
Associate Deputy Commissioner for Mental Health
Internal Management
Office of Educational Planning
State Mental Hospitals
Division of Information Management
Data Processing
Associate Deputy Commissioner for Mental Retardation
EMIS Project
Assistant Commissioner for Special Education and State Schools
State Schools for the Mentally Retarded
Office of Data Processing
Division of Special Education
State School for the Blind
Division of Program Analysis and Statistical Research
State School for the Deaf
Texas Youth Council
Correctional Schools for Delinquents

FIGURE 1. TEXAS ORGANIZATION CHART RELATING TO SPECIAL EDUCATION SERVICES

IV. DATA ELEMENT EVALUATION

For the 1969-70 school year, out of approximately 1200 local school districts in Texas, 508 (representing 207 of the 253 counties) were authorized to provide some type of special education service. In addition, countywide and six bi-countywide day schools for deaf children were approved by the Division of Special Education. All of the data for this locally-sponsored special education (which includes that provided to the residents of state hospitals operated by the Department of Health) that are currently collected originate from the Superintendent of Schools in each schools district. Data for the two state schools for the blind and the deaf and for the schools operated by the Texas Youth Council are reported by their administrators on an as requested basis. The remaining data, that for the hospitals and schools operated by the Department of Mental Health and Mental Retardation, are not reported to the Division of Special Education, but are maintained in detailed form by the Office of Data Processing in that Department.

In the following paragraphs, the data elements needed by the Manpower Requirements Projection Model and by the state for planning purposes are discussed in terms of their availability and development potential. Currently, the Division of Special Education uses a data summary type of system, in which the data elements are reported in summarized form, by categories, and are used in summary form. However, within the Division, interest was expressed in the possibility of maintaining a register of handicapped children at the state level; the automated information and processing system used to maintain such a register should be a modification of a Pupil Accounting System (PAS). Both alternatives are presented for the development of each data element.

Identified Handicapped Population

The number of children enrolled in special education, the first component of the most important data element (the number of children identified as needing special education), is partially reported to the Division of Special Education. Annually, at the end of the school year, the Division receives local school district enrollment data, by age and handicapping condition (but not by educational program), on a form entitled "Superintendent's Annual Report for 19__-19__ — Part III". A minor modification of the enrollment matrix in this form could be made to collect this summary data by educational program.

If the data are to be kept by child name at the state level, and if it will not be necessary to maintain the teacher name or code in each child's data record, the reporting of enrollments by total district each June could be replaced by having an authorized officer of each school district update an automated list of the previous year's enrollments and waiting list. If teacher identification is needed, each child's record would need to be updated annually. Forms to collect the initial data would have to be designed but, thereafter, the updating could be done on the automated list. This type of system, in which the data are recycled, would eliminate the need for separate data summary requests in June such as those contained in the Superintendents report form referred to above. This recycling would also reduce the data reporting task of the local school districts and would increase the validity of the data.

Detailed enrollment data should not be hard to obtain on a yearly basis from the state schools for the blind and the deaf and from the four schools for delinquents operated by the Texas Youth Council. A simple matrix form or, if data is to be kept by child name at the state level, a child record request form (similar to that designed for use by local districts) could be used by the superintendent or principal of each school to report enrollment by age (and by educational program if more than one exists within a school).

The Office of Data Processing in the Department of Mental Health and Mental Retardation maintains a detailed, automated file of all residents in the Department's hospitals and schools. Since many cross-tabulations of the data are currently being made, it would not be difficult to develop an additional computerized routine to produce cross-tabulations by single year of age (and additionally by I.Q. for the schools for the Mentally Retarded) of the enrolled child population and/or the total resident child population. Thus, all of the enrollment data needed for model input could be collected.

Currently, the number of children on special education waiting lists, the second component of the identified handicapped child population, is probably complete at the local education agencies, but is not collected by the Division of Special Education. If these data are not complete, however, and if the local agencies can be convinced of the value of their and the state's keeping track of this data for planning purposes, a request for the number or names of children on the waiting list, by age and handicapping condition, could be made at the same time and on similar forms as the request for enrollment data. The state schools under the Department of Education and the Texas Youth Council could use similar forms to report their waiting list information.

At the state hospitals and schools operated by the Department of Mental Health and Mental Retardation, there are two possible definitions of waiting list information, depending upon whether the enrollment data include all residents of the institutions. If the enrollment data do include all residents, then the waiting list data are limited to children who are awaiting admittance into the institutions; otherwise, the waiting list data include those resident children who are awaiting special education services as well as those awaiting admittance. Which definition will become the working one will be dependent upon the information relating to educational services that is contained in each resident's automated data record.

The flow of enrollment and waiting list data from the Department of Mental Health and Mental Retardation to the Division of Special Education will be determined by the Department. Two alternative flows can be presented for their consideration. The first would have the data, either by child name or summary totals, reported directly to the Division. Only if the local districts are reporting data to the Division by child name should the second alternative be considered: that the data be transmitted, by child name, to the applicable local school districts for inclusion in their reports. The local district would then be responsible for reconciling any duplications. This second alternative should also include the transmission, by the receiving school district to the Department, of any information needed to update the children's records. This updating function would be an encouragement to the Department to supply the data. If the local districts are reporting their data to the Division of Special Education by child name, and if the first alternative (but by child name) is chosen by the Department, it would be possible to eliminate duplications in the data at the state level. But in this case, the Department would not have the advantage of the local districts' updating function.

Having both the enrollment and the waiting list data reported by child name and maintaining a register of handicapped children at the state level, an automated processing system could easily eliminate duplications, if necessary, and produce automated lists of each district's identified handicapped child population and the status of each child. These lists could then be sent to each district for annual updating, rather than recollecting all of the data each year. Such recycling of the data would increase local involvement in the use of the reported data, resulting in more accurate data over time. This accurate data could also be used as a basis for funds allocation and program evaluation, thus eliminating the need for the locals to report the same data more than once, as well as reducing the amount of data reported annually.

Unidentified Handicapped Population

Since no complete and systematic diagnostic referral system now exists at the state or local level, data on the unidentified handicapped child population will probably have to be estimated using the modified national prevalence rates that Texas uses now rather than an estimate of the diagnostic waiting list and the potential undiagnosed population.

Using prevalence rates is an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternative methods of validating these rates.

Entrants and Attritions

Information about the numbers of children moving into and out of the identified handicapped child population is not collected in a form that could be used by the Manpower Requirements Projection Model or most methods of program evaluation. The "Superintendent's Annual Report . . . " requests, by handicapping condition, the number of re-entries and the number of losses of pupils enrolled in special education during the school year. The movement of children during the summer is ignored — yet many of the decisions to return children to regular school occur at year end, but take effect at the beginning of the year; many parents wait until the summer months to move; and a significant amount of diagnosis is usually conducted during the summer. Thus, much data are lost to the Division of Special Education.

The category "re-entries" includes, without distinguishing between, data about children who move from the waiting list to the enrollment list as well as data about children who are newly diagnosed as needing special education and are placed directly into it. The former children have already been reported as belonging to the identified handicapped child population and thus should not be considered as new entrants.

At the present time, most of the diagnosis is the responsibility of each school district. Even if a statewide system were to be set up, using the Regional Service Centers as hubs, the diagnostic reporting system would be structured so that all of those diagnoses would be reported to the child's school district. Thus, the only information about the number of children diagnosed as needing special education that would not be available at the local school district would be that about the number diagnosed at the state hospitals and schools under the Department of Mental Health and Mental Retardation. Cooperative arrangements could be made between this Department and the Department of Education to affect the reporting of those diagnoses either directly to the Division of Special Education (by child name or totals) or to the child's local school district (by child name).

The type of special education information system that Texas decides to implement will dictate the form of the data about new entrants (both newly diagnosed and intra-state transfers, i.e., new entrants to a local district who have been previously diagnosed by another district within the state) that will flow to the Division of Special Education. For the data summary type of system, the local districts could report their "during the year" totals of newly diagnosed and intra-state transfers, by age and handicapping condition, on a simple matrix form at the end of the data year. If the children diagnosed in the state institutions are being reported to the local districts by child name, they can be included in each district's totals.

For the modified pupil accounting system, such data on newly diagnosed children and intra-state transfers can be collected by child name either at the end of the data year or periodically during the year, depending upon the level of automation of the system and the degree of currentness desired for the system. If the local district data does not include the state institution data, the latter can be reported directly to the Division of Special Education and any duplications between the two sets of data can be eliminated within the automated system. If an automated list of the identified handicapped children is being sent to the local districts at the beginning of the data year, it would be preferable to have that list updated, with new entrants added and attritions (also discussed below) noted, and have a copy forwarded to the state at the end of the data year rather than to design a separate set of forms to collect the information.

Information about attritions from the total identified handicapped population can be developed in a manner similar to that discussed above for entrants. There are four alternative methods for collecting attrition data by age, handicaps, and reason for attrition (e.g., return to regular education, moved out of district). The first two are based upon the assumption that enrollment and waiting list data are kept separately at the local level and involve these data being reported separately, either by child name or numeric totals. In this case, children who transfer from the waiting list to the enrollment list should not be counted as either an attrition from the former or an entrant to the latter. The last two methods are the reporting, again either by child name or numeric totals, of attritions from the enrollment and waiting lists combined. Here too, if the reports are by child name and an automated list of the identified handicapped children is being sent to the local districts, it would be preferable to have that list updated, with attritions noted and coded by reason, and a copy forwarded to the state at the end of the data year.

As was discussed above for enrollment, waiting list and new entrant data, if attritions from the state schools and institutions could be reported by child name to and validated by each appropriate local school district, these data could be included in each district's report to the state. Otherwise, the state sponsored programs could be asked to report their attritions, either by child name or numeric totals, directly to the Division of Special Education.

Other Data Elements

The analyst was unable to determine the availability of annual projections of Texas' school age population, used in conjunction with incidence rates by the Manpower Requirements Projection Model to calculate the projected number of new entrants into the handicapped child population. Further investigation should be undertaken to determine whether such projections, preferably by single year of age, are made by a state agency, such as Department of Finance or Division of Vital Statistics.

The Director of the Division of Special Education and/or his staff of Assistant Directors and consultants can provide the data needed to simulate special education. Since the standards developed by the Division apply to all special education programs, no other source need be consulted. Thus, no further development effort is needed for these data elements:

- Trends in the number or proportion of enrolled children being served in each educational program, by target group (an educationally meaningful combination of handicapping condition and education level); termed educational program mix
- The types of personnel (occupations) serving each target group in each educational program and their associated personnel/pupil contact ratios.

If the Division of Special Education wishes to collect data on the numbers of special education personnel employed, by type, in order to calculate the current manpower gap, data development would require a minimum of effort. The

Office of ADP in the Department of Education maintains an automated file of all teachers employed in Texas. Assuming the data element "present assignment" is coded so that special education teachers, by type, are easily recognizable, the numbers of such teachers could be easily tabulated. A request for the number of paraprofessionals employed would probably have to be made directly to the local school districts.

V. PROCESSING POTENTIAL

Currently, systems analysis and data processing services for the Texas Department of Education are provided by the Office of ADP. This Office maintains a Univac 1050 computer (which does not have a FORTRAN compiler), which is adequate to handle a special education information system but not to handle the programmed Manpower Requirements Projection Model. An interagency agreement could be made which would allow the Division of Special Education to lease time on the Department of Mental Health and Mental Retardation's computer (an IBM System 360/Model 40 maintained by the Office of Data Processing) to run the model. The current lease charge is $100.00 per CPU hour. The charge will rise to $250.00 per CPU hour when the Office of Data Processing installs a new IBM System 360/Model 50, but since the speed of the new computer is greater than the old, the cost per model run will probably not increase significantly. Final estimates of model run time will be presented in later documents pertaining to this project.

Mr. Partridge and his Assistant Director in charge of Planning and Evaluation, Mr. Robert Winn, both indicated that they are in favor of using the mathematical model to project special education manpower requirements. Mr. Partridge and his staff are capable of preparing the input for and analyzing and evaluating the output from such a model. Everyone interviewed (including the staff in the Division of Special Education, the Assistant Commissioner for Special Education and State Schools, and the Associate Commissioner for Educational Planning and his staff) was enthusiastic about designing and implementing a special education information system. Mr. Partridge indicated a willingness to undertake any work necessary to assist and direct the implementation of such a data collection and processing system.

VI. ADDITIONAL FACTORS

Within the Texas Department of Education, the Division of Information Management is performing the preliminary study and systems design phase of a project to develop an Educational Management Information System. Even though the types of information and the specific data elements that will comprise the data base for the EMIS have not yet been determined, any new data forms proposed for use by any part of the Department must be approved by the Director of the EMIS project before entering the regular approval cycle—i.e., approval by the Office of Planning and then by the Commissioner of Education's Council. Representatives of the EMIS project estimated that another five years would be needed to complete the design and implementation phases but they, and others in the Office of Planning, did not think that a special education subsystem or module would have to follow the same schedule. They saw that the EMIS could benefit from the experience of designing and implementing a smaller subsystem or module, such as for special education, when it came to working on the other subsystems and modules.

The Division of Special Education is responsible for administering the homebound program in each local school district. Currently, the homebound program does not generate any special education personnel requirements; because no special certification is required, regular education teachers are employed in this program. Additionally, since the Division has found that the number of children needing homebound services has not varied appreciably from year to year, the requirements for personnel in this program have been relatively stable.

It is appropriate to discuss in this section some of the problems which the Division of Special Education will encounter in the implementation of a complete data collection system. In some of the Texas counties (and thus the local districts), it is difficult to organize special education programs because the counties are sparsely populated. This lack of local special education service has some implications on the development of a statewide information system and on the data required by the model. One is that, due to lack of local service, parents and teachers are not encouraged to have potentially handicapped children diagnosed unless they might be eligible for admission to a state school or institution. Thus, even in the future, data on the rate at which children are diagnosed as needing special education in those districts will not reflect the actual new incidence of handicapping conditions. Also, special education waiting list data, which ideally should represent the total unserved handicapped child population, would underestimate that unserved population, the extent of the underestimation being in question because of the unknown number of unidentified children. However, if it can be assumed that the handicapped child population in these local districts is small, the lack of complete data is not likely to adversely affect the validity of statewide data tabulations.

The only other significant problem which may occur concerns the establishing of the cooperative arrangements, between state level agencies, needed to set up reporting procedures, which are a prerequisite to the collection of accurate and complete data about the identified handicapped child population and the movements into and out of that population. Building upon the good working relationships that currently exist between the Director of the Division of Special Education and both the Associate Deputy Commissioner for Mental Health and the Assistant to the Associate Deputy Commissioner for Mental Retardation, it should be possible to develop an equitable reporting arrangement—either a data interaction with the local school districts or one directly with the Division.

VII. RECOMMENDATIONS

In order to provide for data needs of the Manpower Requirements Projection Model and other data requirements of the Division of Special Education (and other offices within the Department of Education), it is recommended that Texas consider either a data summary type of system (in which the data elements are summarized into categories by the local school districts and other data sources and are used in summary form by the state information system) or a modified pupil accounting system (in which there is a data record for each handicapped child), e.g., one without scheduling and academic testing information included in each child's data record. This latter type of system is abbreviated as "modified P.A.S." The decision as to the type of system that will be implemented should not be based only upon the in-house availability of systems analysis and data processing services, but should be based upon the intended state and local use of the data and upon the amount of local and other state agency effort required to supply the data.

If a register, or record by child name, of handicapped children is not to be maintained at the state level, it is recommended that Texas retain and expand their data summary system. To initiate the expansion of this system, a request for the enrollment data by educational program could be made on the Superintendent's Annual Report, Part III, by making a minor modification (e.g., addition of sub-categories) to either the row titles of the matrix on page 2 or the column titles of the matrix on page 3. Waiting list data could be collected on a matrix having the same format as that on page 3 of the above report, that used currently for enrollment data. Modifications of these matrix formats, but for a single handicapping condition, could be used by the state schools for the blind and deaf, the schools operated by the Texas Youth Council, and on a voluntary basis by the privately operated special classes, to report enrollment and waiting list information.

The remaining data for this data summary system, i.e., data on new entrants to the handicapped child population needing special education and data on attritees from that population, should be requested in summarized form on matrices (one for each data element) similar in design to that presented in Figure 2. The matrix for recording attritions should have subcolumns for reason for attrition (e.g., return to regular class, moved). Blank copies of these matrices can be used by the local school districts in a hash-mark fashion to record the data during the year. The totals could then be transferred to a new set of matrices for transmittal to the Division of Special Education.

In order to collect such summary data about the State Mental Hospitals and the State Schools for the Mentally Retarded, a cooperative agreement must be reached between the Department of Education and the Department of Mental Health and Mental Retardation to affect the reporting of the data element totals from the latter's Office of Data Processing to the former's Division of Special Education. Ideally, the enrollment data so reported should not include all residents of the institutions but only those actually enrolled in special education programs.

Handicapping Condition / Age / Source	41 – Blind		41A – Partially Sighted	
	Newly Diagnosed	Intra - State Transfer	Newly Diagnosed	Intra - State Transfer
2	///		卌 /	
3				
4		/		
5	///		卌 卌	
6		//		卌
7	/		卌 //	
8				
9				

FIGURE 2. EXAMPLE OF MATRIX FORM TO COLLECT LOCAL DISTRICT DATA ABOUT NEW ENTRANTS TO HANDICAPPED CHILD POPULATION AND EXAMPLE OF HASH-MARK ENTRIES

If a register of handicapped children is to be maintained at the state level, it is recommended that a modified pupil accounting system be implemented. Such an automated system, having the feature that the data need only be updated and not replaced yearly, would reduce the amount of data flowing from the local districts and state schools and institutions to the Division of Special Education and would ease the reporting tasks of the data sources. As a data source, the Department of Mental Health and Mental Retardation will be treated differently since this source already has a complete data storage and processing system. Thus, where this analysis refers to report forms, the data needed from this Department will, if possible, be generated on computer-printed output reports, not necessarily similar in design to those discussed below.

To initiate this modified P.A.S., forms similar in design to that presented in Figure 3 could be developed to request information from each data source about each handicapped child eligible for special education. Such information should include but need not be limited to child name, birth date, address (street, city or post office, and zip code), county, school district number, father's first name, mother's first name, diagnosed primary handicap (coded), diagnosed secondary handicap (coded), date of diagnosis (if obtainable), education status (coded: type of education he is currently receiving, type of education he should be receiving), date of entrance into the local district, date of most recent entrance into special education, reason for (coded) and date of most recent attrition from special education, date of attrition from the local district, and miscellaneous diagnostic testing information.

Each of the two parts of the variable called education status could be coded as a two-digit code, with the first digit representing the handicapping condition for which the education is oriented and the second digit representing the type of educational program. Some examples of this are shown in Table 1. Using this coding scheme, a child who is currently receiving special class instruction for the emotionally disturbed and is on the waiting list for one of the state institutions would be coded as 84/82; a child who is currently in regular education awaiting entrance into a resource room program for the physically handicapped would be coded as 01/36.

The recommended systems design for such an automated pupil accounting system is presented in Figure 4. The following discussion may be easier to understand if this figure is kept in mind.

When the initial handicapped children file (alphabetically by child name within handicapping condition within local district) has been generated, each data source should be sent two copies of an automated list of their children. The updating of the file can be done either periodically or at year end. Because it is always preferable to spread a workload over the greatest possible time period, it is recommended that changes to the automated list be sent to the state periodically (at least bi-monthly) by the local districts. Simple forms (similar to the

District ____________________

Submitted by ____________________

Date ____________________

Texas Education Agency
State Department of Education
Division of Special Education
Austin, Texas

Initial Report of All Handicapped Minors Eligible for Special Education

Child Name	Birth Date			Address			Fathers Name or Male Guardian	Mothers Name or Female Guardian	Primary Handicap	Secondary Handicap	Date of Diagnosis			Educ Status		
	Mo	Day	Yr	Street	City or P.O.	Zip					Mo	Day	Yr	Pres	Should	
1.																
2.																
3.																
4.																
5.																
6.																
7.																
8.																
9.																
10.																
11.																
12.																
13.																
14.																
15.																
16.																
17.																
18.																
19.																
20.																
21.																
22.																
23.																
24.																
25.																

FIGURE 3. EXAMPLE OF REPORT FORM TO COLLECT INITIAL DATA FOR A MODIFIED PUPIL ACCOUNTING SYSTEM

TABLE 1

POSSIBLE CODING SCHEME FOR THE VARIABLE EDUCATION STATUS

First Digit = handicapping condition for which the education is oriented

0 = none
1 = blind
2 = partially sighted
3 = physically handicapped
4 = minimally brain injured
5 = deaf
6 = educable mentally retarded
7 = trainable mentally retarded
8 = speech and hearing therapy
9 = emotionally disturbed

Second Digit = type of educational program

0 = none
1 = regular class
2 = residential school
3 = special school
4 = day special class
5 = cooperative special class
6 = resource room
7 = itinerant instruction
8 = homebound instruction

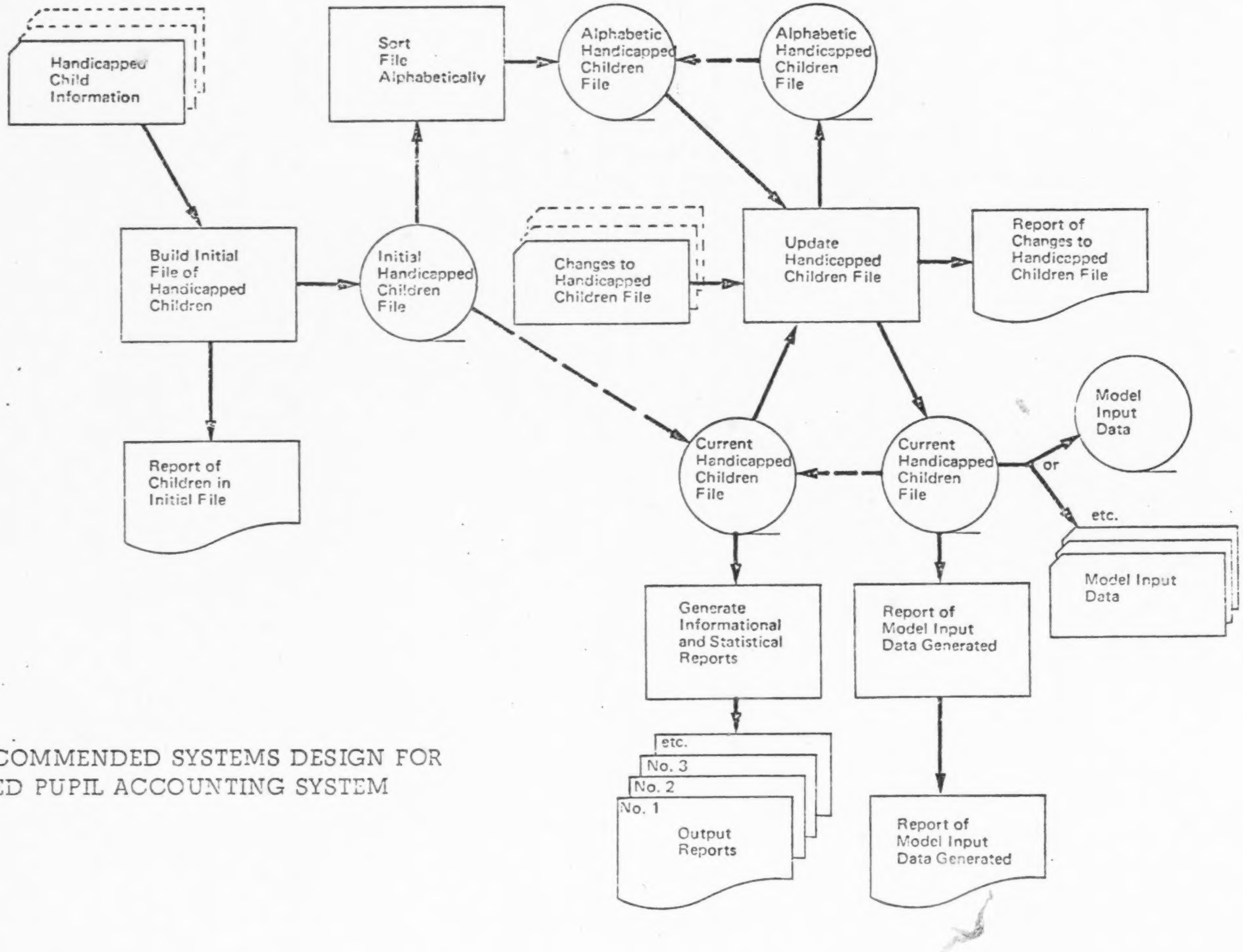
Handicapped Child Information
Build Initial File of Handicapped Children
Report of Children in Initial File
Sort File Alphabetically
Initial Handicapped Children File
Alphabetic Handicapped Children File
Alphabetic Handicapped Children File
Changes to Handicapped Children File
Update Handicapped Children File
Report of Changes to Handicapped Children File
Current Handicapped Children File
Current Handicapped Children File
Model Input Data
or
etc.
Model Input Data
Generate Informational and Statistical Reports
Report of Model Input Data Generated
etc.
No. 3
No. 2
No. 1
Output Reports
Report of Model Input Data Generated

FIGURE 4. RECOMMENDED SYSTEMS DESIGN FOR
A MODIFIED PUPIL ACCOUNTING SYSTEM

form requesting the initial information) specifically for this purpose can be easily designed so that a minimum of information needed for updating would be required of the data sources. A continuing system such as this, requiring only periodic updating, has the advantage of significantly reducing the volume of reporting to the state which the local districts and state schools must do. For example, instead of having to report all identified children each year, a data source needs to report only the changes to the population, which may affect only 20-25 percent of the children.

There are two possible data flows that can be used to maintain and update the system. The first flow has the local education agency (LEA) as the focal point of data collection, placing on each LEA the responsibility for keeping all of its handicapped child data. Realistically, this is based upon soliciting the cooperation of the state schools and institutions, including those under the Texas Youth Council and the Department of Mental Health and Mental Retardation, to interact with the local districts. If the Departments (or the individual schools and institutions) will send to each local district a list of the district's children who are enrolled in special education, are resident and awaiting entrance to special education, or are on a waiting list to be admitted into residency, and if the local district will then update the list as necessary (e.g., indicating that a child has moved or is enrolled in a newly created program at the local level) and, after recording all the information that they need, will send that corrected list back to the Departments, then such interaction can be of benefit to both parties. Such a flow would contain no duplications. If this flow is adopted, then the modified pupil accounting system would have one input data source, the local school district. The local school district, in turn, would receive its data from many sources.

The second flow requires data duplications to be detected and removed at the state level. The local districts and the state schools and institutions would report each child directly to the Division of Special Education and an automated system would verify, purge, and record the required data. The second flow is easier for the individual respondents. However, if a large amount of duplication exists, records for entry into the system may have to be selected manually, since a machine cannot be trusted to determine which record submitted for a child is valid.

From the current handicapped children file, many reports of interest (informational and statistical) and all of the child related data needed by the Special Education Manpower Requirements Projection Model can easily be generated. The records of those children who are reported as attritions should contain the date of such attrition and should be flagged and retained on the file for at least one year to ensure that intra-state transfers are recognized as such. For example, intra-state transfers will be recognizable using the variables for date of most recent entrance into special education and/or the local district, and reason for and date of most recent attrition from special education and/or the local district; a child who has moved from one local district to another will be reported as an attrition from the first and an entrant into the second but, when data is tabulated, will not be included in state-wide totals for new entrants and attritees.

The alphabetically sorted handicapped children file is used to eliminate the possibility of a child being reported by more than one local district, as would be the case if a child moved and was reported as a new entrant by his new district before the old district reported him as an attrition. In this case, the child's record can be flagged to indicate that this has happened. The alphabetic file could also be used to generate the data needed by the model if interim totals by district are not needed by the Division of Special Education for any purpose.

The timing of the data flow, especially in a data summary type of system or a modified pupil accounting system that does not contain dates (e.g., of entrants and attritions), is very important. All enrollment data should be reported as of the beginning of the data year; currently, in Texas, the reports are received as of the end of the school year, but this can coincide with the beginning of the data year within the framework of an information system. All waiting list data should also be reported at that time. There are two alternatives to the timing of the entrants and attrition data reports. The reports can be made once a year or periodically during the year. If the former schedule is selected and if June 15 is considered the beginning of a data year, reports should be completed as of that date and should contain the data for the previous data year — thus, an attrition report sent to the Division of Special Education containing data as of June 15, 1971, would contain the number of children that had attrited from the identified handicapped child population during the year, June 15, 1970 to June 14, 1971. If the latter schedule is selected, the final periodic reports should be sent to the Division of Special Education soon after June 15 and should reflect all entrants and attritions, as of June 15, since the previous periodic reports. In either case, the entrants and attritions occurring during the summer months should be recorded and reported.

Either set of forms recommended for the two systems can easily be keypunched and processed on the computer in the Department of Education's Office of ADP.

VIII. RESOURCE REQUIREMENTS—MANPOWER

If an expansion of the current data summary type of information system is to be implemented in Texas, it is estimated that two man-weeks will be required to design and/or redesign data collection instruments and two to four man-weeks will be required to obtain approval of the new forms. In addition, approximately two man-months of a systems analyst/programmer's time will be required to accomplish the required systems design, coordination, and computer programming/debugging for the data summary system.

For the automated modified pupil accounting system, it is estimated that one man-month will be required to accomplish the first of the above-mentioned set of tasks and that 3 1/2 man-months will be required to accomplish the latter set.

The task of coordinating with the local districts (i.e., training local people to fill out the new forms, engendering local support for the information system, and ensuring completeness and validity of the reported data) could probably be assigned part-time to all the consultants in the Division of Special Education. If they already have a relatively large workload, it is recommended that a part-time coordinator be employed to assist the consultants in this task during the first year of any systems implementation. This task is estimated to require approximately 3 man-months for the data summary system and 4 man-months for the pupil accounting system. During the big push to get the system initiated, these consultants will be the only state level personnel who are familiar enough with the situations in the local districts to make accurate judgments about the completeness and validity of the initial data. Thereafter, the task of ensuring that the data reported is reliable will require very little effort (approximately 1 man-month annually) on the part of the consultants.

The Assistant Commissioner for Special Education and State Schools and the Director of the Division of Special Education, by virtue of their position and influence, are the only persons who can arrange for the cooperation of the Texas Youth Council and the Department of Mental Health and Mental Retardation. The amount of time that this will take is dependent upon the attitudes and the organizational structure of all the agencies and organizations involved.

IX. PERSONS INTERVIEWED

The persons interviewed by the ORI (Leasco) representative, Miss Beverly Johns, during the week of 27 October were:

Mr. Charles Nix	Associate Commissioner for Educational Planning, Texas Education Agency
Mr. Walter Howard	Director, Division of Needs Assessment, Office of Educational Planning, Texas Education Agency
Mr. Keith Cruse	Director, Program of Needs Assessment, Office of Educational Planning
Dr. Robert A. Montgomery	Assistant Commissioner for Special Education and State Schools, Department of Education, Texas Education Agency
Mr. Donald L. Partridge	Director, Division of Special Education, Office of Special Education and State Schools
Mr. A. Donald Weston	Assistant Director in charge of Program Development and Research and Title VI, Division of Special Education
Mr. Robert Winn	Assistant Director in charge of Planning and Evaluation, Division of Special Education
Mrs. Jane Fox	Consultant for Visually Handicapped, Division of Special Education
Mr. Albert W. Douglas	Superintendent, Texas School for the Deaf, Office of Special Education and State Schools
Mr. Charles R. Young	Acting Principal, Texas School for the Blind, Office of Special Education and State Schools
Mr. Les Clark Mr. Charles Cole	Educational Management Information System Project, Division of Information Management, Office of Internal Management, Texas Education Agency

Mr. Stanley Pender	Assistant to the Associate Deputy Commissioner for Mental Retardation, Department of Mental Health and Mental Retardation
Dr. Daniel Sheehan	Director, Division of Program Analysis and Statistical Research, Department of Mental Health and Mental Retardation
Dr. John D. Williams	Director, Office of Data Processing, Department of Mental Health and Mental Retardation

X. CURRENT REPORT FORMATS

- Superintendent's Annual Report for 19__- 19__ - Part III
- Application for Allocation and Reallocation of Special Education Units
- Report for Activated Special Education Units 19__- 19__

County Name

District Name

Region-Co.-Dist. No.

STATISTICAL REPORT FOR UNITS IN SPECIAL EDUCATION
For the School Year 1968-69

TABLE I.NUMBER OF UNITS, ORIGINAL ENTRIES, RE-ENTRIES, LOSSES, END OF YEAR MEMBERSHIP, AVERAGE DAILY MEMBERSHIP AND AVERAGE DAILY ATTENDANCE
1968-69

The Statistical Report for Units in Special Education for the School Year 1968-69 must accompany the Application for Units in Special Education for the School Year 1969-70

Please report only those units operated under the Minimum Foundation School Program. Do not report units operated from local funds.

Table I: The items of Number of Units, Original Entries, Re-entries, Losses, End of Year Membership, Average Daily Membership and Average Daily Attendance may be taken from the pupil's accounting records and/or the teacher's daily register.

Code No.	Type of Unit	Number of Units	Original Entries	Re-entries	Losses	End of Year Membership	Average * Daily Membership	Average Daily Attendance
41	Blind							
41A	Partially Sighted							
42	Physically Handicapped in Schoolroom							
42A	Homebound							
42B	Hospital							
42C	Minimally Brain Injured							
43	Deaf (exclusive of preschool and county-wide day schools)							
44	Educable Mentally Retarded							
44A	Trainable Mentally Retarded							
45	Speech and Hearing Therapy							
	COMBINATION UNITS							
(1)	and (2)							
(1)	and (2)							
(1)	and (							
	County- for the							
	Preschool Deaf							

(REPRODUCED FROM STATE FORM)

*For Code No. 45, Speech and Hearing Therapy, report only Six-weeks Average Membership for year.

County Name District Name Region-Co. Dist. No.

SPECIAL EDUCATION

TABLE II AGE DISTRIBUTION OF MEMBERSHIP (ORIGINAL ENTRIES PLUS RE-ENTRIES MINUS LOSSES) OF PUPILS ENROLLED BY TYPE OF UNIT

1968-69

Table II: Age distribution of Membership of Pupils Enrolled by Type of Unit is based on ages as of September 1, 1968 (both white and Negro).

(REPRODUCED FROM STATE FORM)

CODE	41	41A	42	42A	42B	42C	43	44	44A	45
Age: 6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
Over 21										
TOTAL										

County-wide Day School for the Deaf

Preschool Deaf	
Age	Number
3	
4	
5	
TOTAL	

250

County Name

District Name

Region-Co-Dist. No.

SPECIAL EDUCATION

TABLE III GRADE DISTRIBUTION OF MEMBERSHIP (ORIGINAL ENTRIES PLUS RE-ENTRIES MINUS LOSSES) OF PUPILS ENROLLED BY TYPE OF UNITS
1968-69

Table III: Grade Distribution of Pupils Enrolled by Type of Unit is based on the grade the pupils were enrolled in during the school ar 1968-69 (both white and Negro).

Table IV: Level Distribution of Pupils Enrolled, Educable Mentally Retarded only (both white and Negro), is based on "Levels of Development in the Curriculum for Educable Mentally Retarded" as revised in 1962. Report pupils in one level only. Do not report trainable mentally retarded pupils.

CODE	41	41A	42	42A	42B	42C	43	45	County-wide Day Schools For Deaf
Grade 1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
Ungraded									
TOTAL									
How many graduated?									
How many were terminated?									

(REPRODUCED FROM STATE FORM)

TABLE IV LEVEL DISTRIBUTION OF MEMBERSHIP (ORIGINAL ENTRIES PLUS RE-ENTRIES MINUS LOSSES) OF PUPILS ENROLLED, EDUCABLE MENTALLY RETARDED ONLY.
1968-69

44	
Level	Number
I	
II	
III	
IV	
V	
VI	
VII	
TOTAL	
How many graduated?	
How many were terminated?	

D43-25

207

TEXAS EDUCATION AGENCY

AUSTIN, TEXAS
78711

• STATE BOARD OF EDUCATION
• STATE COMMISSIONER OF EDUCATION
• STATE DEPARTMENT OF EDUCATION

April 22, 1969

form due June 15

TO: THE SCHOOL OFFICIAL ADDRESSED

SUBJECT: Application for New, Continuing and Additional Units in Special Education for 1969-70

Application for new, continuing, and additional units in Special Education, as well as preschool age deaf, will be made through the Consolidated Application for State and Federal Assistance 1969-1970. In using this consolidated application form, you may apply for units under the following categories:

1. To establish new (program) units
2. To continue units currently being operated
3. To add units in an area already established
4. To include programs for preschool age deaf children

Schools expanding their program to include a new type of special education will need to submit a local plan and/or supplement and file it with the Division of Special Education as early as possible. You may wish to contact the Division of Special Education regarding the status of your Local Plan for Special Education which is on file.

In the event you are unable to complete and submit the entire Consolidated Application for State and Federal Assistance by June 1, 1969, complete the attached FP Form No. 70-20, page 41, and mail it in separately to the Division of Program Funds Management. This is necessary in order to assure your participation in the Minimum Foundation Fund Program.

If we may be of further assistance to you in completing your application, please do not hesitate to call on us.

Sincerely yours,

R. E. Slayton, Director
Division of Program Funds Management

RES:lgr

Attachment

(REPRODUCED FROM STATE FORM)

FP Form No. 70-20

APPLICATION FOR ALLOCATION AND REALLOCATION OF SPECIAL EDUCATION UNITS

(Consult State Plan for Special Education, November 1965, for policies concerning the initiation, organization, and operation of Special Education classes in Texas)

Co. Dist. No. ________

City ________ Sch. Dist. ________ Co. ________

(REPRODUCED FROM STATE FORM)

	Code No.	Type of Unit	NEW (PROGRAM) UNITS		CONTINUING AND ADDITIONAL UNITS					10 AND 11 MONTH UNITS		TOTALS
			Number New Pupils	New Program Units Requested	Number Continuing Pupils	Number Additional Pupils	Total Number of Pupils (3+ 4= 5)	Continuing 9 Mos. Units	Additional 9 Mos. Units	No. 10 Mos. Units, T/C, HOS, VAC, Other	No. 11 Mos. Units HOS, VAC	Total Number of Units (2+6+7+8+9=10)
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
①	41	Blind									▨	
②	41A	Partially Sighted									▨	
③	42	Physically Handicapped in Schoolroom										
④	42A	Homebound										
⑤	42B	Hospital										
⑥	42C	Minimally Brain Injured										
⑦	43	Deaf (exclusive of County-wide day schools)										
⑧	43A	Preschool Age Deaf									▨	
⑨	44	Educable Mentally Retarded										
⑩	44A	Trainable Mentally Retarded										
⑪	45	Speech and Hearing Therapy										

COMBINATION UNITS (May include any two types shown above EXCEPT Trainable Mentally Retarded, Preschool Age Deaf, and Minimally Brain Injured.) For each unit, select applicable code number from the list of Types of Units above.

	(1) (2)										
	(1) (2)										
(95)	TOTALS										

(96) Item I – A local Plan for Special Education has been submitted to the Texas Education Agency. Yes (1) ____ No (2) ____

(97) Item II – If operating or applying for a VAC Unit the school district has signed the 'Cooperative Rehabilitation Agreement' with the Divisions of Special Education and Vocational Rehabilitation. Yes (1) ____ No (2) ____

Item III – Application for Cooperative Units, programs serving 2 or more school districts, shall be made through the office of the County Superintendent.

(98) A. List all cooperating school districts: ________

(99) B. List school district serving as fiscal agent: ________

JOB CODE

T/C – Teacher Coordinator
HOS – Hospital
VAC – Vocational Adjustment Coordinator
Other – Teacher Training Institutio

DUE OCTOBER 15, 1969

ACTIVATED SPECIAL EDUCATION UNITS 1969 – 1970

(Consult State Plan for Special Education, November 1965, for policies concerning organization, and operation of Special Education classes in Texas)

Co. Dist. No. __________

City __________ Sch. Dist. __________ Co. __________

(REPRODUCED FROM STATE FORM)

			PUPILS	TEACHER UNITS					9 MONTH UNITS	10 AND 11 MONTH UNITS		TOTALS
	Code No.	Type of Unit	Total Number of Pupils	41	42	43	44	45		No. 10 Mos. Units, T/C, HOS, VAC, Other	No. 11 Mos. Units HOS, VAC	Total Number of Units
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
①	41	Blind			▨	▨	▨	▨			▨	
②	41A	Partially Sighted			▨	▨	▨	▨			▨	
③	42	Physically Handicapped in Schoolroom		▨		▨	▨	▨				
④	42A	Homebound		▨		▨	▨	▨				
⑤	42B	Hospital		▨		▨	▨	▨				
⑥	42C	Minimally Brain Injured		▨		▨	▨	▨				
⑦	43	Deaf (exclusive of County-wide day schools)		▨	▨		▨	▨				
⑧	43A	Preschool Age Deaf		▨	▨		▨	▨			▨	
⑨	44	Educable Mentally Retarded		▨	▨	▨		▨				
⑩	44A	Trainable Mentally Retarded		▨	▨	▨		▨				
⑪	45	Speech and Hearing Therapy		▨	▨	▨	▨					

COMBINATION UNITS (May include any two types shown above EXCEPT Trainable Mentally Retarded, Preschool Age Deaf, and Minimally Brain Injured.) For each unit, select applicable code number from the list of Types of Units above.

	(1) (2)										
	(1) (2)										
(99)	TOTALS										

Date Completed __________

Superintendent's Signature __________

MAIL TO: Division of Program Funds Management
Texas Education Agency
Austin, Texas 78711

JOB CODE

T/C – Teacher Coordinator
HOS – Hospital
VAC – Vocational Adjustment Coordinator
Other – Teacher Training Institutions

D43-28

DUE

OCTOBER 15, 1969

Column (1) Report Pupils only.

(2) Report Blind and Partially Sighted Teacher Units, total on bottom line on the page.

(3) Report Physically Handicapped Units, total on bottom line on the page.

(4) Report Deaf Units, total on bottom line on the page.

(5) Report Mentally Retarded Units, totals on the bottom line on the page.

(6) Report Speech and Hearing Therapy Units, totals on the bottom on the page.

(7) Report all nine (9) month units, totals on the bottom line on the page.

(8) Report all ten (10) month units indicating by code the assigned responsibilities which allow the additional month allocation, totals on the bottom line on the page.

(9) Report all eleven (11) month units indicating by code the assigned responsibilities which allow the two (2) additional months allocation, totals on the bottom line on the page.

(10) Report all units by category. These figures should balance with the figures shown in the Teacher Units section (Columns 2. 3, 4, 5, or 6) and also with those figures shown in Columns 7 + 8 + 9 which equal Column 10.

Combination Units should be reported in the first two lines at the section at the bottom of the page.

Date Completed shall be entered at the time of the Superintendent's signature.

MAIL TO: Division of Program Funds Management prior to October 15, 1969.

(REPRODUCED FROM STATE FORM)

TABLE 2
SUMMARY OF DATA DEVELOPMENT STATUS
TEXAS

DATA ELEMENTS			LOCAL PUBLIC SCHOOL DISTRICTS			STATE SCHOOLS UNDER DEPT. OF EDUCATION AND TEXAS YOUTH COUNCIL			OTHER STATE HOSPITALS AND SCHOOLS UNDER DEPARTMENT OF M.H. AND M.R.			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Available at end of school year	Switch rows and columns of current matrix and add education program within handicap (type of unit) or design form for P.A.S.	County superintendent or his representative in school district central office	Available informally	Develop simple matrix form with data elements as column headings or design forms for P.A.S.	Superintendent or principal of each school	Resident populations available by age groupings	Develop computer routine to produce cross-tabulations by age and handicap (including I.Q. if M.R.) for each data element needed or to produce lists that can be sent to the Division of Special Education or to the resident's local school district	Individual resident records submitted by each hospital and school, processed by Office of Data Processing	On voluntary basis, data could be requested to be transmitted to applicable local districts or to Division of Special Education on modification of local district report formats
		HANDICAPPING CONDITION										
		EDUCATION PROGRAM	Not available									
	ON WAITING LIST	AGE	Not available	Develop matrix similar to current enrollment matrix or design form for P.A.S.		Not available						
		HANDICAPPING CONDITION										
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not available	Develop matrix forms similar to current enrollment matrix or design forms for P.A.S.	County superintendent or his representative in school district central office	Not available			Available for new and re-admissions to resident population, by age groupings but not by source			
		HANDICAPPING CONDITION										
	INTRA-STATE TRANSFERS	AGE	Not available									
		HANDICAPPING CONDITION										
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Not available						Available for discharges and all separations from resident population, by age groupings but not by reason			
		HANDICAPPING CONDITION	Available for enrollees, Sept-June only									
		REASON	Not available									
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Undetermined	Investigate the availability of the data in other state agencies								
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Available as defined by legislation, policy, and planning	Not applicable	Director of Division of Special Education and/or his staff	Same as for local public school districts	Not applicable	Same as for local public school districts	Same as for local public school districts	Not applicable	Same as for local public school districts	Request voluntary information on individual school policy
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP										
		EDUCATION PROGRAM										
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Available for teachers from automated teacher files	Pull information off the files and add paraprofessionals to the files	Office of ADP, Department of Education	Not available	Develop simple matrix form	Superintendent or principal of each school	Not available	Request from automated personnel file	Office of Data Processing	Request voluntary totals from each school

UTAH STATE ANALYSIS REPORT

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VI. ADDITIONAL FACTORS D44-11

VII. RECOMMENDATIONS D44-11

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IX. PERSONS INTERVIEWED D44-15

The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

UTAH STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state education agencies and BEH and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Utah, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 2 at the end of this report.

II. SUMMARY

Utah is in a good position to initiate the information flow necessary to provide the data required for the Manpower Requirements Projection Model utilization. A good data flow procedure already exists and an automated data processing system is currently under development, utilizing computer hardware capable of processing the projection model program. The proposed information system should result in successive improvements in the completeness and accuracy of the data elements overtime, with validity being achieved within a few annual data cycles.

Many of the data elements necessary for the special education Manpower Requirements Projection Model are already flowing from local agencies to state agencies and the remaining requirements are capable of development within the existing information flow process. The local school districts report special education information to the state Division of Special Education on already existing forms. Other state agencies with responsibilities for handicapped children most willing to cooperate in the lateral transmission of data at the state level.

An education personnel automated data bank already exists and only requires the specification of output formats to become immediately useful to the Division of Special Education.

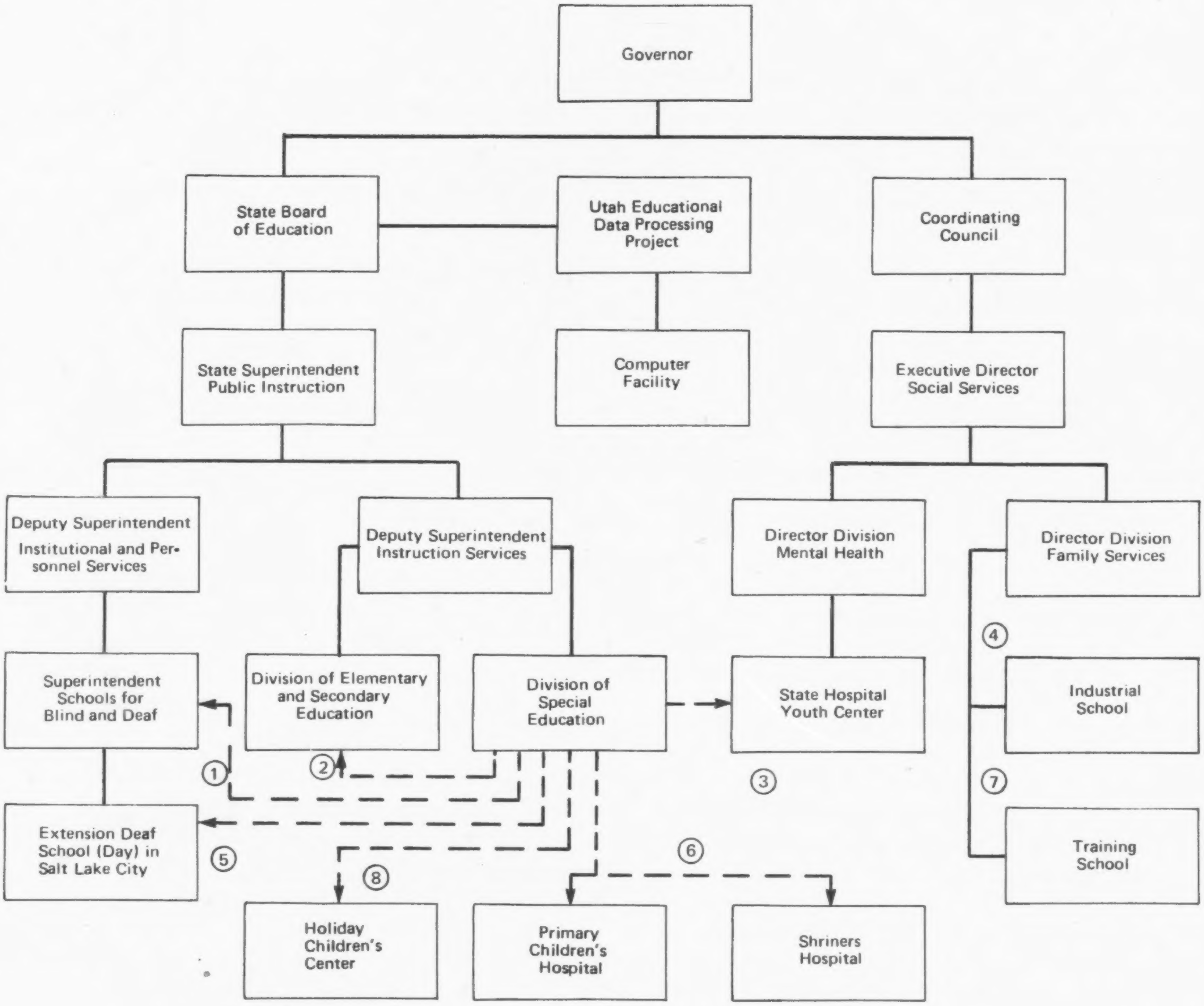
The Department of Public Instruction in Utah has a unique opportunity to automate fully its educational data because of the existence of the Utah Educational Data Processing Project (UEDP). This project, staffed by personnel contributed by RCA Instructional Systems and by approximately 20 state personnel is responsible for providing an administrative data processing system for the school districts and the State Board of Education.

Dr. Pace, Coordinator of Special Education, is most enthusiastic about the potential of the special education Manpower Requirements Projection Model. He recognizes the need for technical assistance to support him, and is concerned about the availability of such support. If the UEDP project functions as indicated, this support should be available.

The data processing hardware available for use by the Department of Public Instruction has the capability of handling the model data processing program.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The responsibility for the education of handicapped children in Utah is illustrated in the annotated informal organization chart shown in Figure 1. Only those organizations having educational or informational service functions for handicapped children have been shown. The Department of Public Instruction is the primary special education agency, because the public school system falls within its jurisdiction.


Governor
State Board of Education
Utah Educational Data Processing Project
Coordinating Council
State Superintendent Public Instruction
Computer Facility
Executive Director Social Services
Deputy Superintendent Institutional and Personnel Services
Deputy Superintendent Instruction Services
Director Division Mental Health
Director Division Family Services
Superintendent Schools for Blind and Deaf
Division of Elementary and Secondary Education
Division of Special Education
State Hospital Youth Center
Industrial School
Extension Deaf School (Day) in Salt Lake City
Training School
Holiday Children's Center
Primary Children's Hospital
Shriners Hospital
①
②
③
④
⑤
⑥
⑦
⑧

NOTATIONS

1. State residential schools. Division of Special Education supervises Educational programs, but has no financial control.
2. Public schools. Division of Special Education approves special education programs and budgets money for them.
3. For treatment of emotionally disturbed. Division of Special Education provides teachers and supervises educational programs.
4. State correctional institution.
5. Division of Special Education only participates in funding.
6. Private schools for emotionally and physically handicapped unable to attend school. Division of Special Education provides teachers and supervises educational programs.
7. State residential school for the mentally retarded.
8. Private center for pre-school emotionally disturbed. Division of Special Education buys services, but has no program control.

FIGURE 1. HANDICAPPED CHILD EDUCATION RESPONSIBILITIES IN UTAH

The Division of Special Education approves and supervises the special education programs within the public school system. This includes programs for all handicapping conditions except the emotionally disturbed and physically handicapped who are not able to attend school and are confined to private hospitals. It also has some responsibility tie-ins with other handicapped child education agencies, as will be noted when discussing those agencies.

The Superintendent of Schools for the Blind and Deaf is another function within the Office of Public Instruction. It is responsible for the operation of two residential schools, one for the blind and one for the deaf. It also operates the extension day school for the deaf in Salt Lake City. The Division of Special Education supervises the special education at the resident schools but has no financial control.

The Department of Social Services has a responsibility for handicapped children also. Under its Division of Family Services, it operates a residential training school for mentally retarded and an industrial school (correction institution). There is no direct official connection with the Division of Special Education, but an informal communications tie does exist. In addition, the Division of Mental Health operates a State Hospital Youth Center for emotionally disturbed children. The Division of Special Education provides the special education teachers and supervises the educational programs at this center.

There is little private special education in Utah. The Primary Children's Hospital and the Shriners Hospital provide care for the emotionally disturbed and physically handicapped who are not able to attend school. Teachers are provided and children are referred through the public school system. The state also buys services from but does not exert any program control over the privately operated Holiday Childrens Center for preschool emotionally disturbed.

IV. DATA ELEMENT EVALUATION

Some specific data elements are necessary to the use of the projection model. The information which these data elements provide may also be very useful to the Division of Special Education for other operational analyses. These data elements and their potential sources are discussed in the following paragraphs.

Enrollment

Enrollment data by single year of age and handicap condition are currently available for public school children at the Division of Special Education in the form of a series of standardized special education forms, color coded by handicapping condition, which list each student and his age. Figure 2 is an example. These forms are prepared by the Local Education Agency (LEA) and forwarded to the State Education Agency (SEA) by October 31 of each year. All children listed on the form are of the same primary handicapping condition. The program in which the children are enrolled can be derived from the handicapping condition, since all children in the public school system are enrolled in a single type of program for each handicapping condition as follows:

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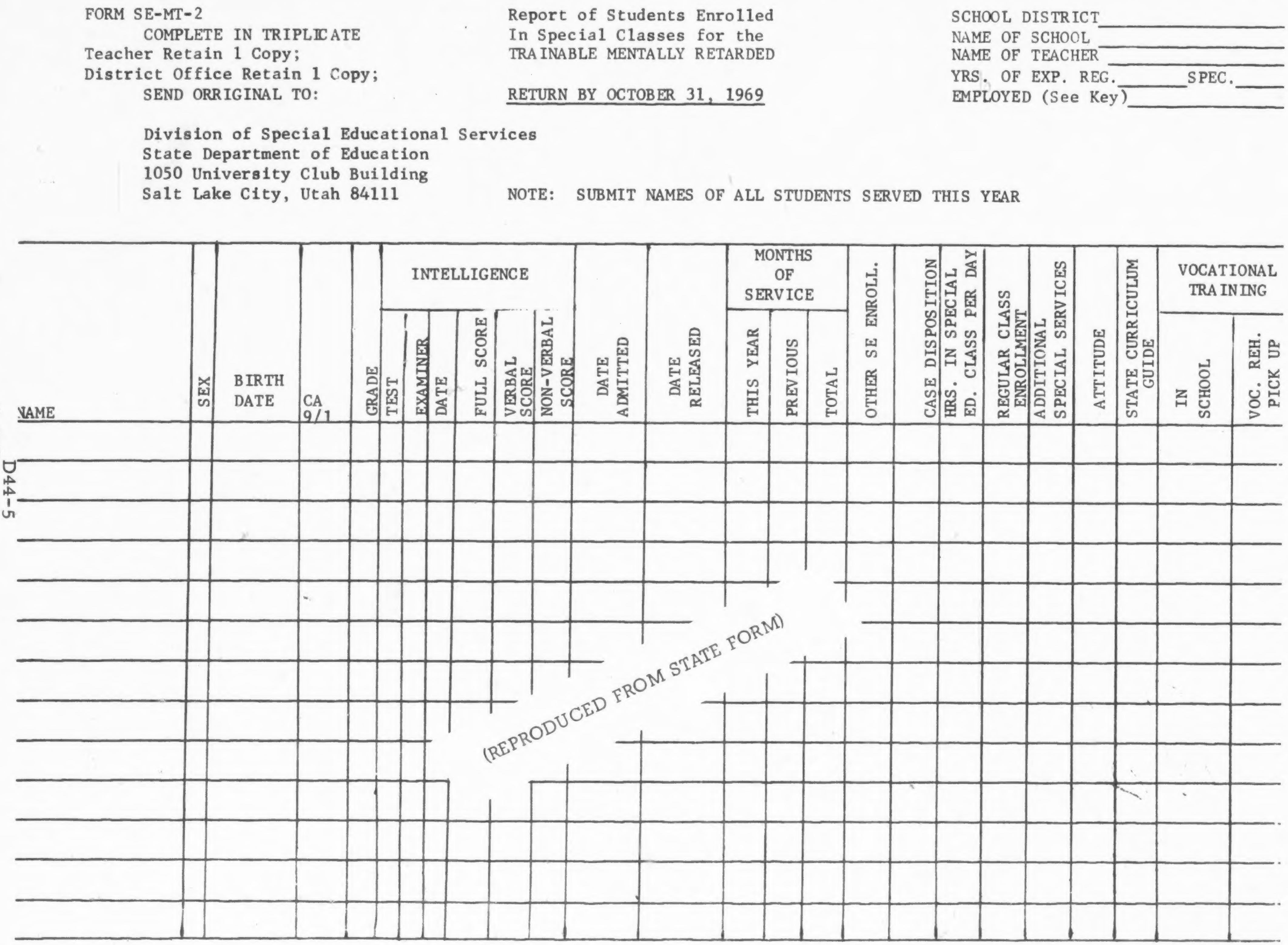

FORM SE-MT-2
COMPLETE IN TRIPLICATE
Teacher Retain 1 Copy;
District Office Retain 1 Copy;
SEND ORRIGINAL TO:

Division of Special Educational Services
State Department of Education
1050 University Club Building
Salt Lake City, Utah 84111

Report of Students Enrolled
In Special Classes for the
TRAINABLE MENTALLY RETARDED

RETURN BY OCTOBER 31, 1969

NOTE: SUBMIT NAMES OF ALL STUDENTS SERVED THIS YEAR

SCHOOL DISTRICT ______
NAME OF SCHOOL ______
NAME OF TEACHER ______
YRS. OF EXP. REG. ______ SPEC. ______
EMPLOYED (See Key) ______

NAME	SEX	BIRTH DATE	CA 9/1	GRADE	INTELLIGENCE						DATE ADMITTED	DATE RELEASED	MONTHS OF SERVICE			OTHER SE ENROLL.	CASE DISPOSITION	HRS. IN SPECIAL ED. CLASS PER DAY	REGULAR CLASS ENROLLMENT	ADDITIONAL SPECIAL SERVICES	ATTITUDE	STATE CURRICULUM GUIDE	VOCATIONAL TRAINING	
					TEST	EXAMINER	DATE	FULL SCORE	VERBAL SCORE	NON-VERBAL SCORE			THIS YEAR	PREVIOUS	TOTAL								IN SCHOOL	VOC. REH. PICK UP

(REPRODUCED FROM STATE FORM)

FIGURE 2. SAMPLE ENROLLMENT REPORT

Handicapping Condition	Program
Blind	Itinerant
Partially sighted	Itinerant
Deaf	Special classes in regular schools
Hard-of-hearing	Itinerant
Emotionally disturbed	Special classes in regular school
Educable mentally retarded	Special classes in regular school
Trainable mentally retarded	Special class in regular school
Severe mentally retarded	Special school
Speech handicaps	Itinerant
Special learning disabilities (remedial)	Cooperative special class
Motor handicapped	Special class in regular school
Homebound and hospitalized	Itinerant

If current policy should change and handicapping conditions were included in multiple programs (for example, blind children taught in both an itinerant program and in a special class in a regular school), provision would have to be made for identifying the type of program on the enrollment reporting form.

Although enrollment data is currently available for public schools, it is not presently available at the state level for state institutions and hospitals and for private institutions. This, however, does not appear to be a problem because there are only a few state institutions from which data has to be collected — schools for the blind and deaf, a training school, an industrial school, and a state hospital youth center — and these have all indicated a willingness to provide the required data, perhaps on forms used by the public schools.

In Utah there are only three private institutions — Primary Children's Hospital, Shriners Hospital, and Holiday Children's Center — and, since the informal liaison between the Division of Special Education and these private institutions is so good, this information may be collectable by telephone.

Unserved Handicapped Child Population

The Division of Special Education has established prevalence rates which it believes gives it a good approximation of the total child population needing special education services. The total number needing service is calculated by applying the prevalence rate for each handicapping condition to the actual average daily attendance for all public schools for the previous year. The difference between this figure and the number actually served yields the unserved child population. Using these rates, Utah arrives at a theoretical measure of the rate of service being provided. This is a ratio of the number enrolled in special education to the number believed to require such services. This can be considered the ultimate service goal, but it varies according to the reliability of the prevalence rates. By these data, Utah believes it is serving less than one-half its handicapped child population except for the blind and deaf (whom approximately 85 percent are served).

The current prevalence rates have been in use in Utah for 5 years. These rates, along with some published prevalence rates,[1] are listed in Table 1.

Using prevalence rates is an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternative methods of validating these rates.

A direct measure of the actual degree of service to handicapped children can be accomplished by relating the enrollment in special education to the total number of children identified as needing services. The number of children identified consists of those already enrolled in special education plus those on the waiting list (children already diagnosed and awaiting special education services). This, of course, requires two things. First, the state has to have a procedure for systematically diagnosing its children and determining special education candidates, whether services are available or not. If the special education services are not available, a waiting list is established. Secondly, this waiting list information has to be assembled so that a total evaluation of the shortage of services may be made.

A possible method of developing this waiting list information is outlined below. Diagnosis and admission are determined at the local level by a school district committee. The diagnostic activity and the information regarding waiting list composition, if available, are not currently reported by the LEA to SEA. However, since the admission is at the local level for public schools and at the institutional level for the state operated institutions, the waiting list, if one does exist, could be accumulated at the school district or institutional level. The institutions, with interagency cooperation, could advise the local school districts of any children from their district, who have applied for admission, so that duplication of count can be avoided. A list of children by age, handicapping condition, and date of diagnosis would then be provided to the Division of Special Education for a complete tally of the waiting list. This information would be submitted annually at the same time as enrollment data.

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[1] Lloyd M. Dunn, "Exceptional Children in Schools", Holt, Rinehart and Winston, 1966.

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TABLE 1

PREVALENCE RATES USED IN UTAH

Handicap	Utah, Percent	U.S. Office * of Education, Percent	Canadas * Bureau of Statistics, Percent
Educable Mentally Retarded	2.0	2.0	2.0
Trainable Mentally Retarded	.2	.3	
Severe Mentally Retarded	.1		
Motor (Nonsensory Crippled)	.5	1.0	.1
Speech	5.0	3.5	2.1
Deaf	.08	.1	.54
Hard-of-hearing	.5	.5	
Blind	.04	.03	.13
Partial sight	.05	.06	
Emotionally disturbed	2.0	2.0	2.0
Remedial	3.0	—	—

* "Exceptional Children In Schools," Lloyd M. Dunn, 1966

Attrition

Data on attrition is not currently collected at state level. However, the mechanism exists for obtaining this information on the same special education forms on which enrollment data is collected. The current procedure is for the Division of Special Education to recycle the same forms back to the LEA for the insertion of some additional information which would only become known at the end of the school year. Included in this information is a column marked "Case Disposition," in which is inserted a code indicating the status of the child in the special education program. A minor revamping of the case disposition codes to include provision for mortality, return to regular education programs, and transfer to another district would provide the basis for the attrition data. All of the current codes that refer to other reasons for drop out could be aggregated for model application.

Attritions from the waiting list could be obtained by annually recycling the waiting list back to the LEAs and institutions for updating. The period of recycling should correspond with projection and planning cycles.

General Population Projections

Annual population projections by single year of resident age are not currently prepared. However, according to Mr. Duane Carr, the Staff and Pupil Accounting Specialist in the Department of Education, all the necessary statistics are available, and the projections can be made upon request.

Trend of Enrollments

Although this information is not aggregated in an analytical listing, it is available from examination of the annual "Summary of Local District Special Education Reports." This report shows the enrollment, by handicapping condition for each level of education. This is backed up by detailed reports from each of 40 local school districts.

Employment by Personnel Types

There is already in existence on magnetic tape a personnel file for public schools that identifies special education personnel by occupational assignment (teacher by handicapping condition, counselor, supervisor, school nurse, psychologist, etc.), grade level of teaching assignment, and level of personnel education. The efficient utilization of this file could be greatly improved if some specifications and sort programs were developed to aggregate the data according to usage requirements, e.g., count by occupational assignment by district and state, count by personnel educational level and occupational assignment. Some refinement should be made in the occupational coding to identify supervisory and administrative functions with a special education services code, so that a sort based upon the special education identifier code could include these personnel.

Personnel/Pupil Ratios

These ratios are already in existence and are published in the "Legal Provision, Definition and Explanation of Special Education Programs." The minimum and maximum limitations, according to state standards, for each handicapping condition, are stated. In addition, ratios expressing good practice are listed for elementary and secondary levels of each handicapping condition.

V. PROCESSING POTENTIAL

Utah seems to be on the threshold of having an automated information and data processing system for its public school educational system. A personnel file has already been established and a pupil data bank is being developed.

The Utah Educational Data Processing Project is a unit organizationally responsible to the State Superintendent of Public Instruction. Its objective is to establish a cooperative data processing capability for the state's 40 school districts and the State Board of Education. The unit will provide administrative data processing for grade reporting, census, attendance accounting, scheduling, etc. The long-range goal is to establish a data bank for pupil, personnel, fiscal, and facilities accounting operations. The original impetus for this project was the donation of 11 man-years, over approximately a 2-year period, of technical assistance by RCA Instructional Systems. In addition, there are 20 state employees, including a project director, a systems manager, three education coordinators, six programmer/analysts, an operations manager, two operators, four control personnel (including one key punch operator), and two secretaries.

Since much of the data required for model utilization is already flowing to state level, and many of the data elements are already included in the initial UEDP project plans, model application has a high potential.

Hardware

The hardware capability and capacity are very adequate for Manpower Requirements Projection Model needs. An RCA Spectra 70/45, with 131 K memory, 4 tape drives, 3 discs, printer, card punch, card reader, and FORTRAN compiler (sorting is done on tape) are all assigned to the UEDP project and as such are available for Department of Public Instruction use.

Personnel

One of the principal problems facing the Division of Special Education is the preparation of initial input. Although most of the raw data now flows to the Division, the responsibility for input preparation has not yet been assigned. The Division does have the capability to determine what information it requires. However, it does not now have the analytic capability to design, coordinate, and prepare input data. A representative of the UEDP project has indicated that he will consult with the Division in the near future to study reporting needs and data sources. If this service will include the detailed level of work necessary to implement the program for the Division of Special Education, then automated data processing (ADP) for the Division should be available in the near future.

Personnel to operate the ADP system and equipment should be no problem if the UEDP project provides the services for which it was chartered.

The Division of Special Education staff is well capable of analyzing and evaluating the model output as well as utilizing the simulation potential.

Attitude

The attitude of the Division of Special Education toward the use of the mathematical model was most enthusiastic to the point of impatience to get going. There is some reservation about the application of ADP because of a previous attempt that failed, however, the circumstances hopefully have changed since that time because of the establishment of the UEDP project. Dr. Pace and the ORI analyst had detailed discussions concerning implementation procedures including modifications to existing formats, code restructuring, output format requirements, and the philosophy of implementation.

VI. ADDITIONAL FACTORS

The Division of Special Education actively participates in and contributes to local special education efforts. This liaison, because of the communication which already exists, can improve the potential for information flow by providing firsthand interpretation and guidance to the local level data sources.

The success of the Utah Education Data Processing project will have a major bearing on the implementation potential of the Manpower Requirements Projection Model. Success by the UEDP project in designing and implementing the Department of Education system, will provide the confidence in ADP that will carry the model utilization right along with it.

VII. RECOMMENDATIONS

The following recommendations would, upon implementation, provide for the information flow of data elements necessary to Manpower Requirements Projection Model utilization and improve the quality and quantity of information available for special education program management.

Those recommendations critical to model implementation are:

a. The Division of Special Education consult with the other state agencies and private institutions having a responsibility for handicapped child education to devise a procedure for incorporating their enrollment data into the public school data base so that it will represent the total enrollment of handicapped children. It is suggested that the public school formats may be used.

b. The current prevalence rates have been in use for 5 years. Procedures should be initiated for reviewing and validating these rates as soon as possible.

c. The establishment of waiting list information is necessary to the future determination of the level of participation, that is, the amount of service being supplied to the number of children identified as needing it. Obviously, if children are only diagnosed and identified as handicapped children when the service required is available, there is no backlog, no waiting list, and a lower incentive for planning and funding the expansion necessary to service those children awaiting diagnosis. It is recommended that a procedure be established which will report the results of the diagnostic effort even when service capabilities do not exist. This procedure is outlined in Section IV.

d. The Special Education Forms also contain the means for collecting attrition data and new entrants during the year. When the forms are recycled in the spring of the year, the teachers should add to the list the names of any students that were added to their class since the initial form preparation. This will facilitate the compilation of enrollments during the year. Attritions should also be noted during this same recycle process. However, the meaning and use of the "Case Disposition" codes should be re-examined and better defined for three categories : mortality, return to normal education (this can be a measure of special education accomplishments also), and the grouping of all other causes into one "other drop out causes" category. However, the Division of Special Education may want to provide for more detail so that they can analyze drop out trends and causes.

e. The basic data and capability for the projection of the general child population is available in the Staff and Pupil Accounting Office. It is recommended that these projections be prepared soon, so that they can be statistically analyzed and reviewed, and revised if necessary. This information would then be available when required and a potential cause for delay avoided.

The following recommended actions would improve the information flow for special education program management.

a. The existing series of Special Education Forms provides for the collection of all the enrollment data required by the Manpower Requirements Projection Model. However, the reliability and consistency of the data may be improved if the personnel preparing the form had some additional guidance. This may be accomplished in several ways:

   1. Prepare some general instructions for the protions of the form that are standardized. Explain the need and purpose of the data and define the terminology.

   2. When visiting the local districts and conducting workshops, discuss the form and its intent. This will give the users an opportunity to directly ask questions pertaining to its use.

b. The existing Personnel Data Bank contains many data elements that would be very useful in the analysis of special education personnel distribution and educational qualifications. However, the utilization of this information for special education purposes requires:

   1. That the instructions for source information be clarified, particularly in the area of the definition of major and minor duty assignments.

   2. That output specifications and format be developed to permit Special Education to extract information from the data bank in a form that would contain only Special Education information, and sorted in an order(s) required for administrative use.

c. The advent of the statewide educational data bank, which is under development by the UEDP program, will be of great assistance to special education and to the use of the Manpower Requirements Projection Model. However, it is strongly recommended that the Division of Special Education carefully consider that information, in addition to model requirements, which it requires for its own analysis, so that these requirements can be included in the data bank design and in the output reports to be produced. The Division of Special Education should determine the type and extent of technical support that will be available to it from the UEDP project. It may be necessary for the Division to include in its staff the capability to analyze information requirements, organize and coordinate data sources (LEA and other state agencies), design reporting formats and implement input of the data to the system so that if may obtain maximum utility from available data. If automatic data processing can be established to provide the required information, much manual clerical work can be eliminated.

VIII. RESOURCE REQUIREMENTS—MANPOWER

Since the educational data bank is already under development in Utah, few additional resources should be associated with obtaining the information necessary for the utilization of the projection model.

It may be advisable to include in the staff of the Division of Special Education the previously recommended systems capability, not only for model application, but for the many other benefits that such a capability could provide. During implementation, this probably would take 2 man-months of special education staff effort, 2 man-months of systems analyst time, 1 man-month for programming, and one man-month of clerical effort over a period of from 24 to 30 months. Maintenance of the system (forms review, special report requirements, annual inputs, and update cycles) is estimated to require 1 1/2 man-months of combined skills per year.

IX. PERSONS INTERVIEWED

The persons interviewed by the ORI (Leasco) representative, Mr. Carl Koch, during the week of 3 November 1969 were:

Dr. R.E. Pace	Coordinator, Special Education Programs
Dr. Glen Brown	Utah State Hospital
Dr. Lester Carlson	Consultant, Utah State Industrial School
Duane Carr	Specialist, Staff and Pupil Accounting
A. Christopulos	Principal, School for the Deaf
Donald Edwards	Principal, School for the Blind
K. Brinkerhoff	RCA Instructional Systems, Representative to the Utah Educational Data Processing Project

TABLE 2
SUMMARY OF DATA DEVELOPMENT STATUS

UTAH

DATA ELEMENTS			PUBLIC SCHOOLS			OTHER STATE AGENCIES			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Available on current enrollment forms	(Not applicable)	Class teacher	Not available on existing reporting formats	Use necessary portions of public school formats	Individual institution through the Division Director	**Provide necessary data via telephone to Division of Special Education or use public school forms**
		HANDICAPPING CONDITION							
		EDUCATION PROGRAM							
	ON WAITING LIST	AGE	Not available	Record at local level. Transmit to state level	Local school districts	Referrals are from local school districts	Record at institution level. Transmit to Division Special Education	Institution	**Transmit to Division of Special Education via telephone**
		HANDICAPPING CONDITION							
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not available					Individual institution	**Report to Special Education Division by phone or use public school forms**
		HANDICAPPING CONDITION							
	INTRA-STATE TRANSFERS	AGE	Not available	Modify existing enrollment forms	Class teacher	Not available	Use modified public school enrollment forms	Individual institution	
		HANDICAPPING CONDITION							
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Not available			Not available			
		HANDICAPPING CONDITION							
		REASON							
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Not available	Utilize existing statistics	**Staff and Pupil Accounting Special Department of Education**				
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Available from current reports	(Not applicable)	"Summary of Local District Special Education Reports"	Not available	Extract from school records	Individual school	Extract from school records
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Available and defined by legislation	(Not applicable)	"Legal Provision, Definition and Explanation of Special Education Programs"	Not defined by legislation	Determine individual school policy	Individual school	Determine individual school policy
		EDUCATION PROGRAM							
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Not readily available	Develop ADP extraction from existing data bank	Personnel accounting data bank	Available by head count	(Not applicable)	Individual school	Head count by individual school

VERMONT STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

VERMONT STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Vermont, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

Within the Vermont State Department of Education, the Division of Special Educational and Pupil Personnel Services (SE & PPS) is charged with the state level administration of special education programs supported by state funds. The Division currently receives forms identifying handicapped children served in the programs, and maintains a card file which could be further developed into a manual system to satisfy most of the input data needs of the Manpower Requirements Projection Model. It appears, however, that the Division, and the model, could be better served through the development of an automated information collection system. An ADP-based system would facilitate data collection and handling in support of the model, and would also provide a foundation upon which the Division could further develop systems for improved planning and management.

The Division currently receives no data on programs not supported by state funds. Because a significant number of children are served by such non-state supported programs, the establishment of an information flow from the programs to the Division would be of value, if the data base maintained by the Division is to be representative of state-wide special education. The possibility of involving the Superintendents of the Supervisory Unions in the collection of this data can be examined by the Division.

Special education is also provided in state institutional schools in Vermont. Two schools are administered by the Department of Mental Health, and a third school is administered by the Department of Corrections. Each of these schools can provide the Division with the data needed for model application, and each expressed a willingness to cooperate with the Division as much as possible.

State government in Vermont is served by a Central Data Processing facility, and it is anticipated that the hardware planned for this facility will satisfy model needs. There is, however, a shortage of systems analysts and programmers, and it is anticipated that for model implementation and operation, additional manpower at this level would have to be obtained.

The Director of the Division of Special Educational and Pupil Personnel Services, along with other state level staff contacted, was very enthusiastic about the capability of the model, and is very anxious to obtain the model for application by the Division.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

Responsibility for education of handicapped children in Vermont is illustrated on the informal organization chart of the following page (Figure 1). Special education in Vermont public schools is administered, at the state level, by the Division of Special Educational and Pupil Personnel Services. The Director of this Division reports to the Deputy Commissioner of Education, who in turn reports to the Commissioner of Education. The Commissioner is responsible to the State Board of Education which is appointed by the Governor.

In addition, an Advisory Council on Special Education, consisting of representatives from all levels of state and private agencies concerned with education of handicapped children, recommends, to the Department of Education, general policies for special education within the state.

For public school education, the Department of Education provides overall legislation, but the local Boards of Education are in authority at the local level. The executive officer of each local board is the Superintendent, and all contact and correspondence with a public school regarding special education must be channelled through the Superintendent.

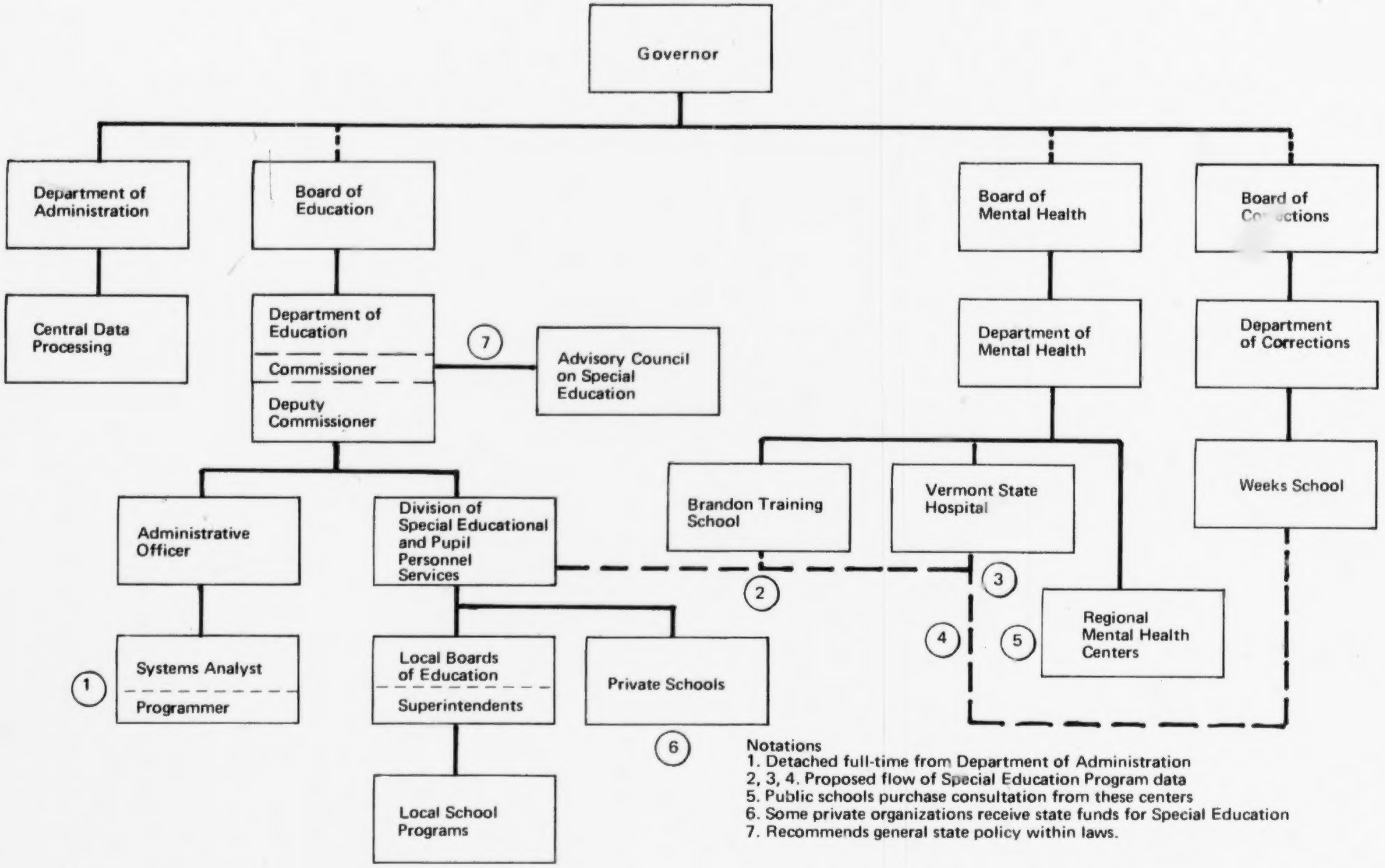
The 246 town school districts in Vermont have been organized into a more manageable system of 53 Supervisory Unions. Special education programs may be sponsored by either Supervisory Unions or individual town school districts.

Two institutional schools for handicapped children are administered, at the state level, by the Department of Mental Health. This Department is headed by a Commissioner, responsible to the State Board of Mental Health. The Brandon Training School handles EMR and TMR children; Vermont State Hospital handles emotionally disturbed children. The Department of Mental Health also provides partial funding for 14 Regional Mental Health Centers (balance of funding is handled locally). Local public schools may purchase consultation, primarily in the area of emotional disturbance, from these centers.

A third institutional school, Weeks School, handles socially and emotionally maladjusted (some emotionally disturbed) children, and is administered by the Department of Corrections. The Commissioner of this Department is responsible to the State Board of Corrections.

Other schools for handicapped are administered by private and quasi-public organizations, some of which receive state funds. These include Vermont Association for the Crippled, Caverly Child Health Center, Austine School for Deaf, Baird Center for Communication Disorders, Children's Center, Elizabeth Lund Home, and others.

Within the Department of Education, systems support to divisions is provided by a systems analyst, responsible to the administrative officer of the Department. This analyst, along with a programmer, is employed by the State Department of Administration, and assigned to the Department of Education on


Governor
Department of Administration
Central Data Processing
Board of Education
Department of Education
Commissioner
Deputy Commissioner
7
Advisory Council on Special Education
Administrative Officer
Systems Analyst
Programmer
1
Division of Special Educational and Pupil Personnel Services
Local Boards of Education
Superintendents
Local School Programs
Private Schools
6
Board of Mental Health
Department of Mental Health
Brandon Training School
Vermont State Hospital
Regional Mental Health Centers
2
3
4
5
Board of Corrections
Department of Corrections
Weeks School

Notations
1. Detached full-time from Department of Administration
2, 3, 4. Proposed flow of Special Education Program data
5. Public schools purchase consultation from these centers
6. Some private organizations receive state funds for Special Education
7. Recommends general state policy within laws.

FIGURE 1. ORGANIZATION OF STATE AGENCIES
PROVIDING SPECIAL EDUCATION PROGRAMS

a full-time basis. The data processing hardware used by the Department of Education, and all state-level departments, is provided by the State Department of Administration's Central Data Processing.

IV. DATA ELEMENT EVALUATION

Enrollment

Vermont legislation guarantees the total cost of education for all exceptional children in the state who are accepted under the state special education program. As part of this coverage, each town guarantees the cost of the elementary level portion of the education of the children in the town. The mechanics of this financing plan are essentially as follows: At the beginning of each school year, the Department of Education calculates the total cost of education for children in each town, or in each Superivsory Union, for that year. A calculated percentage of this total (approximately 50%) is paid to the administrator in the town or Supervisory Union at the beginning of each semester. Shortly after the end of each school year, the town or Union pays back to the state the actual cost of the elementary level portion of education that year.

In the area of special education, a Referral for Special Education form is received by the Division of Special Educational and Pupil Personnel Services for each child identified as handicapped in each town school district. (A copy of this form is contained in Section X, pp. D45-19, 20, 21, of this report.) The form is usually submitted by the Superintendent of the Supervisory Union, and is essentially a request for approval or acceptance of the child as being eligible, under Vermont law, for a special education program. This form includes, among other items, the child's name, date of birth, handicapping condition, and also indicates the type of program requested for the child.

Upon receipt of a Referral for Special Education form by the Division of SE & PPS, an index card identifying the child referred is placed in a file box. When a billing notice is received from a Supervisory Union, indicating that the child has, in fact, been enrolled in a special education program, this file card is marked "enrolled". In addition, another file box is maintained for children for whom billing has been received. A card is placed in this file box for each child enrolled in an approved program, public or private, for which funds have been paid. The index card now used for this file contains only the child's name, age, and town, but the format of the card could easily be structured to include handicapping condition, type of program, and any other data items desired by the Division. The addition of data items to the index cards would not necessarily require that additional data be supplied by local schools, in that the data items for these cards could be taken from the Referral for Special Education forms.

The records on handicapped children maintained by the Division of SE & PPS are somewhat limited for projection model purposes, in that they include only those children enrolled in, or referred by, state-approved public and private programs. Data is not available on children served in programs supported by federal and local funds. A significant number of children are served in these programs. For example, the ten speech therapy programs operating in the state are funded by federal and local funds. Inclusion of data on these programs would be desirable for purposes of comprehensive planning as well as projection model application. Although no state funds are involved, the Division of SE & PPS could elicit the cooperation of the Supervisory Unions in the state, and request that each Union attach a list of children served in the federally and locally funded programs to the billing notice which they now submit to the Division at the beginning of each semester. This list would identify children enrolled, by handicap, year of age, and type of program (itinerant, classroom, etc.).

In light of the above, enrollment data could be tabulated for approved public and private school programs through the continued maintenance of the index card system, modified to include data on age, handicap, and program type, for all children for whom billing is received. An additional card file could be established to record the same data for children enrolled in programs supported by federal and local funds (pending cooperation of Supervisory Unions in submitting this data). While manual tabulation could be done, consideration should be given to the introduction of a more sophisticated manual card sorting system. For example, decks containing edge-notch cards are available, and these enable the user to sort the entire card deck at one time for specific variables.

An alternative approach to the collection of special education enrollment data (as well as other data elements to be discussed in following paragraphs) would involve the development and implementation of an information collection system utilizing automatic data processing (ADP). The Department of Education is now completing work on an information system for general education, intended to collect data on pupil enrollment, buildings, finance, etc.. The systems analyst within the Department of Education stated that this system was not designed to differentiate types of handicapped pupils, and because the handicapped programs represent such a small segment of the overall education system in the state, there would probably be reluctance within the Department to modify the information system at this final phase of its development.

The alternative to be examined would involve the introduction of an information collection system that would focus only on the handicapped pupil population. This system would be ADP-based and would be compatible with the regular education information system now being developed. The input documents used by the system could be structured to contain the data on age, handicap, and program type needed for model application. Data on the status of each child (e.g., whether he is enrolled) could also be included to satisfy billing requirements for special education. The use of a roster of handicapped pupils' names (also handicaps and ages), printed out and sent to each Supervisory Union for update each semester, could be considered as one approach to the systematization of information flow. If each Union could update the status of each handicapped pupil, and add the names of newly enrolled pupils, the Division of SE & PPS would have at its disposal timely data for billing purposes, model application, and any other planning and programming activities. While such a system could be utilized to monitor the state-approved public and private programs, it could also be extended, through the cooperation of the Supervisory Unions, to include the federally and locally sponsored programs in the state. The Superintendent of each Supervisory Union would probably be the most appropriate coordinator for the collection of data on all programs operating in his Union.

Unserved Handicapped Child Population

The Division of Special Educational and Pupil Personnel Services does not now tabulate data on the number of children diagnosed as handicapped but not yet enrolled in special education programs. Some data on children waiting to be enrolled in state-approved public and private programs could be obtained through the index card file currently maintained by the Division (described in the previous paragraphs on enrollment). When the Division receives a billing notice for a child, indicating that the child has, in fact, been enrolled in a program, his file card is marked "enrolled". If no billing notice is received for a child, this indicates that the child is not yet enrolled in an approved program.

The format of these cards could easily be structured to include year of age and handicapping condition of each child. While this file contains cards for children identified through state-approved programs, it contains no data on children identified through federally and locally funded programs. Because the state does not monitor these programs, Superintendents could be asked to monitor the programs in their Unions, and submit to the Division of SE&PPS a list of those children identified as handicapped and waiting to be enrolled in one of the programs. This data could be attached to the billing notices for state-approved programs that are normally submitted to the Division by each Superintendent.

An alternative approach to the collection of waiting list data could also be based upon the ADP information collection system previously described in the paragraphs covering enrollment data. If, for example, a roster were printed out and sent to each Supervisory Union, listing the names, handicaps, and ages of all children that had been identified as handicapped within the Union, the Superintendent could then indicate on the roster the status of each child listed (e.g., waiting to be enrolled) and return the updated roster to the Division of SE&PPS.

The Director of the Division of SE&PPS reports that there is no mechanism at this time to monitor incidence or prevalence of handicaps in the state on an on-going basis. One special study has been conducted, however, in which nearly 2500 elementary pupils in four Supervisory Unions were personnally examined by a specialist in children's handicaps.[1] This study, initiated in 1960, was compared to national statistics in an effort to assess the need for special education in Vermont. Based upon this sample, Vermont prevalence rates did, in fact, exceed national rates in certain handicap areas.

Annual incidence rates could be approximated, for state-approved public and private programs, through the continued maintenance of the index card file which is now used to identify children referred for, and enrolled in, special education programs. The date of referral is placed on the index card for each child for whom a Referral for Special Education form is received. Assuming a form is received for each child identified as handicapped each year, a count of those children, by handicapping condition and year of age, would not be difficult to obtain on an annual basis.

It appears, however, that a fair representation of incidence of handicap in Vermont could not be achieved unless data on children newly identified as handicapped each year could be obtained from federally and locally funded programs in the state. Here again, the Superintendents of the Supervisory Unions could be asked to monitor these programs and collect this incidence data, to be forwarded to the Division of SE & PPS along with the other data that they would be asked to collect.

An alternative approach to the collection of incidence data could also be based upon the ADP information collection system previously described in this section. If, as children were identified as handicapped each semester, their names, ages, handicaps, and dates of referral or diagnosis were added to each Supervisory Union's roster of handicapped children, printouts of the number of children newly identified each year would be easy to obtain. Again, for incidence counts to be representative, data on identification of handicapped children by federally and locally funded programs would have to be included, and efforts would have to be made, through the Superintendents of the Supervisory Unions, to extend the system to encompass these programs.

Attrition

The Division of Special Educational and Pupil Personnel Services currently receives a Report of Status Change form for each child who terminates or transfers from a state-approved program for mentally retarded. (A copy of this form is contained in Section X, page D45-22, of this report.) The Director of the Division stated that the use of this form could be extended to include all handicap program areas, and the format could be restructured to include additional specific reasons for attrition from a program—return to regular education, mortality, transfer to other special education program in the state, or other reasons, These status changes, when received, could then be entered in the index card files maintained by the Division.

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[1] The results of this study are contained in Chart 4, Vermont State Plan, Title VI, submitted November, 1967.

There is currently no mechanism within the Division of SE&PPS to obtain attrition data on programs supported by federal and local funds. As in the other areas of needed data previously discussed, the Superintendents of the Supervisory Unions could be asked to cooperate with the Division in monitoring attrition from these programs.

An alternative approach to the collection of attrition data could also be based upon the ADP information collection system previously described in this section. If rosters of handicapped children enrolled or waiting to be enrolled in special education programs were printed out and provided to each Supervisory Union for each semester, the Superintendents or appropriate school personnel could indicate on the rosters the children that left the programs, and the reasons for their leaving (probably using codes for specific reasons for attrition). Upon return of the rosters to the Division, printouts of numbers of attritions, by handicap, year of age, and reason, could easily be obtained. Here again, for attrition counts to be representative at the state level, data on attritions from federally and locally funded programs would have to be included.

In summary, the collection of data on program enrollments, waiting lists, annual incidence, and attrition could be approached in the following manner. For state-approved public and private school programs, the Division could continue to utilize the Referral for Special Education form to identify handicapped children needing service. The index card file that is based upon this form could be developed, that is, the card format could be structured to include data elements needed for inclusion in the model (as well as other elements that the Division may wish to tabulate), and the file itself could be converted to a more sophisticated system for manual sorting, e.g., edge-notch cards. By updating each child's card based upon receipt of billing notices (indicating enrollment) and modified Report of Status Change forms (indicating transfer or attrition), the card file could be sorted for children not yet enrolled in programs, and children leaving the programs. Annual incidence counts could be obtained by sorting for original dates of referral to the Division.

An alternative approach to the collection of the data needed for model application could involve the development and implementation of an ADP-based information collection system. Such a system could employ basic input documents for identification of handicapped children, such as the Referral for Special Education form. All handicapped children identified could be printed out on rosters for each Supervisory Union in the state. The Superintendents, or other appropriate local personnel, could update the status of each child listed each semester. Data on newly identified children could be added to the rosters, and children who terminate from the programs could be identified. Codes could be employed to indicate whether a child is enrolled (which could be useful for billing purposes), waiting to be enrolled, transferred or terminated. Annual incidence counts could be obtained based upon the original date of identification of the handicapped child. All of the data elements needed for model utilization could easily be printed out, by age and handicapping condition, for all children identified through state-approved public and private programs.

For either alternative approach, the inclusion of data on special education programs supported by federal and local funds would be of value for model application, as well as for the overall planning and programming capability of the Division of SE & PPS. Because there is no flow of program data from these programs to the Division, this flow would have to be developed. It is felt that the Superintendents of the Supervisory Unions in the state would be the most appropriate coordinators of data collection for these programs, in that the Superintendents are in a position to monitor the activities of the programs at the local level. Regardless of whether a manual or ADP-based information collection system would be employed, the Division of SE & PPS would have to work with the Superintendents in the development of the methods and procedures that would be required to establish and maintain the desired information flow at the Supervisory Union level.

General Population Projection

Projections of the general child population in the State of Vermont, for inclusion in the projection model, would be available to the Division of SE & PPS, upon request, from the Statistics Division of the State Department of Health.

Trends in Enrollments

Enrollment trends for state-approved public and private programs could be plotted by the Division of SE & PPS, based upon enrollment data currently received. Data to plot trends for federally and locally funded programs could be available, contingent upon the establishment of a flow of program data from these programs to the Division (as previously described in this report).

Personnel/Pupil Contact Ratios

Personnel/pupil contact ratios for state-approved public and private programs have been established by the Division of SE & PPS, and are contained in guidelines for specific handicap programs which are published by the Division. Ratios used by special education programs not reporting to the Division could probably be obtained through an informal survey of these programs.

Personnel

Counts of special education personnel employed in state-approved programs are currently obtained from printouts provided to the Division of SE & PPS by Educational Statistics and Information, Department of Education. While these printouts reflect the number of teachers involved in special education programs, data on the specific handicap types with which personnel work can be assembled by the Division, based upon other informal lists of personnel which they maintain. In addition, the Teacher Education Services Division can be called upon, if needed, to check degree level, certification, etc., for special education personnel.

The system now used by Education Statistics and Information to collect data on teachers employs three input cards: Card 1, Staff Data Form; Card 2, Certification Data; Card 3, Assignment Data Form. (Copies of these cards are contained in Section X, p. D45-23, of this report.) This system is geared to regular education, and provides no detailed data on special education personnel. Expansion of the codes used on the input cards could provide much useful data. For example, codes for special education validation could be added to the certificate codes contained on the Certification Data card. Also, codes to indicate types of handicapped children taught could be added to the subject/activity codes contained on the Assignment Data Form. Consideration could be given to the selection of appropriate codes from Characteristics of Pupil Groups contained in Standard Terminology for Instruction in Local and State School Systems.[1/]

Data From State Institutional Schools

In addition to the various public and private programs for handicapped operating in the state, the Vermont State Department of Mental Health administers special education programs at the Vermont State Hospital (emotionally disturbed) and the Brandon Training School (mentally retarded).

The Vermont State Hospital is currently handling 30 children on an ungraded basis, and so the tabulation of enrollment data by single year of age would present no problem. No waiting list, as such, is maintained for the program, in that all children at the hospital who are able to participate in special education are enrolled in the program.

Data on children newly diagnosed as handicapped each year has not been monitored by the hospital program in the past, but could easily be checked in the future, based upon the number of new admissions to the hospital each year.

Likewise, data on attrition from the program, including transfers from the the program to other special education programs in the state, could also be monitored in the future with no real difficulty.

The Brandon Training School currently handles approximately 75 EMR children at the elementary and secondary levels, and approximately 45 TMR children at the kindergarten and elementary levels. The tabulation of enrollment data by single year of age can easily be accomplished based upon current records. Brandon does maintain an informal waiting list for enrollment (due to lack of space and teachers to meet needs) and year of age of children waiting could be tabulated in the future. The Assistant Superintendent feels that this data would also be of value to them in their own projections and budget requests.

Brandon identifies and enrolls approximately 50 new handicapped children each year, and data on these children could easily be compiled.

Likewise, because Brandon does follow-up the children who leave the school, attrition data, including data on transfers to other special education programs in the state, will not be difficult to assemble.

[1/] U.S. Department of Health, Education, and Welfare, Office of Education, May, 1967 (Third Draft).

A third institutional school for handicapped, the Weeks School, is administered at the state level by the Vermont State Department of Corrections. While the Weeks School is intended to serve behavioral problems and "unmanageable" children, many of the enrollees are emotionally disturbed children. All but a few of the approximately 140 children are enrolled at the junior high and high school levels, and year of age data on these children could be tabulated with little difficulty.

While the school has no waiting list for enrollment, counts of the children newly identified and admitted to the school each year, by year of age, could be made. Data on attrition from the program, including intra-state transfers to other programs, could also be monitored.

For all of the institutional schools discussed above, enrollment trends could be plotted by the schools themselves, or by the Division of SE & PPS, based upon enrollment data from the schools.

Likewise, all of the schools employ relatively small staffs of professionals, and so data on personnel/pupil contact ratios, and numbers and types of special education personnel, will not be difficult to obtain.

To facilitate tabulation of data, and to ensure consistency of reporting of the needed data elements, the Division of SE & PPS could provide each of the institutional schools with forms and instructions to be used in responding to the data requests of the Division. Based upon contacts with the Coordinator of Patient Education of the Vermont State Hospital, the Assistant Superintendent of the Brandon Training School, and the Superintendent of the Weeks School, good cooperation in the provision of needed data to the Division of SE & PPS should be anticipated.

V. PROCESSING POTENTIAL

Hardware

Data processing support for all state-level departments in Vermont is provided by the State Department of Administration. The data processing facility within the Department is entitled Central Data Processing.

Central Data Processing has been using a GE415, and most work has been done in COBOL. They are now in the process of installing an IBM 360-20, which will also use COBOL. Beyond this, an IBM 360-40 is scheduled for delivery to them in February, 1970 (optimistic date). This machine, if equipped with a FORTRAN compiler, would be adequate for model application. While the systems analyst assigned to the Department of Education was not certain that a FORTRAN compiler had been ordered with the new computer, he felt that, if the compiler was required for model application (rather than converting model to COBOL), it could be requested prior to model implementation.

Personnel

Within the Department of Education, systems support to Divisions is provided by a systems analyst, responsible to the administrative officer of the Department. This analyst, along with a programmer, is employed by the State Department of Administration, and is detached, on a full-time basis, to the Department of Education. It appears unlikely, however, that this analyst and programmer would have time available to devote to any needed systems development, implementation, or operation in support of the model. This systems staff is already faced with an apparently heavy workload. It is felt that if time were expended in support of the model, the other ESEA projects to which the analyst and programmer are now assigned would necessarily suffer. It appears that, for model implementation and application in Vermont, additional systems personnel (systems analyst level) would have to be obtained to work within the Department of Education (at least through the implementation period).

Other systems support required for model application would probably be available through Central Data Processing (e.g., keypunchers, verifiers).

Acceptance of Model Concept

The concept of the Manpower Requirements Projection Model was very well received in Vermont. The Director and Assistant Director of the Division of SE & PPS, and the systems analyst within the Department of Education, were all very enthusiastic about the possibility of obtaining and utilizing the model in the state. The Division, admittedly, has not focused much effort, in the past, on development of an information flow or planning/management system. This model, and the data development that would be associated with it, is viewed as an excellent opportunity, and impetus, to begin to progress in this area.

VI. ADDITIONAL FACTORS

The important consideration concerning the introduction of the Manpower Requirements Projection Model in Vermont relates to the implications that the model would have for the overall development of information systems beneficial to the Division of SE & PPS.

As previously discussed, Division staff is very much aware of the need to enhance planning and management capability, and is most anxious to develop the systems to do so. This, of course, explains their receptivity to the concept of the model and its requisite information flow system. The Assistant Director of the Division has been investigating the possibility of their involvement in a regional Planning, Programming and Budgeting (PPB) system, but there is general agreement that the impetus to identify useful data elements and establish the flow of these elements must come from within the Division.

For Vermont, this model would be viewed as the foundation for a small and somewhat simplified PPB System. The development of the needed data elements and the systematic collection of those elements would be a significant step for the Division, where time and resources, primarily manpower, have been unavailable to do this in the past. The systems analyst stated that he has requested additional systems personnel, but because of shortage of funds, no new systems positions have been developed.

The analyst also stated that if additional resources could be made available to Vermont as part of the model installation effort, the cost of installation should be viewed as small, compared to the benefits that would be derived. That is, over a five year period, the costs incurred during the first two years of operation would be rated as small compared to the value obtained during the remaining three years.

VII. RECOMMENDATIONS

As discussed in the Data Element Evaluation section, for the development of information systems to support the model, there are two basic alternatives to be examined by the Division of Special Educational and Pupil Personnel Services.

The first alternative could involve continued use of the Referral for Special Education form, modified Report of Status Change form, and billing notices, all of which would feed into the manual index card file now being maintained. The format of the cards could be structured to include name, age, handicapping condition, and other items previously described as being needed for the projection model, and/or needed by the Division for other reasons. The file could also be converted to a more efficient system for manual sorting, e.g., edge-notched card deck.

The second alternative could involve the development and implementation of an ADP-based information collection system. Based upon initial identification documents such as the Referral for Special Education form (modified for key-punch), rosters of all children identified as handicapped could be printed out, by Supervisory Union, and then maintained and updated on an on-going basis by the Union and the Division. Such a system could provide inputs, not only for projection model application, but also for billing and other administrative needs. Data elements such as name, age, handicapping condition, status (enrolled, waiting to be enrolled, terminated, etc.) and others, as previously discussed, could easily be contained on such a roster.

For either alternative, the Division could attempt to expand the data base to include data on handicapped children not now reported to the Division, that is, children identified by and/or enrolled in programs not supported by state funds. This would be required if the data base is to be representative of state-wide population and programs, and if subsequent plans and projections are to be made on a state-wide basis. As previously discussed, the collection of this data could probably best be coordinated by the Superintendents of the Supervisory Unions. The Division would have to obtain the Superintendents' cooperation in monitoring these programs, and also work with the Superintendents in the development and installation of the system and procedures that would be used at the Union level to do this.

In the examination of model installation in the state of Vermont, primary consideration should be given to the development of an ADP-based information system. The application of data processing capability to information handling would be desirable, not only in terms of ease of data collection, tabulation and manipulation, but also in terms of the impetus that this would lend for future systems development. The development of an ADP-based system to support the model, similar to the one described in this report, would be viewed by the Division as a first step toward improved planning and management capability.

Consideration should also be given to the expansion of the codes currently used in the personnel information system operated by Educational Statistics and Information. If codes could be added to indicate special education certification of teachers, as well as the types of handicaps with which the teachers are working, the Division could then obtain, from this single source, a summation of much valuable data on special education personnel.

To facilitate the collection of needed data from the state institutional schools serving handicapped children, the Division could develop formats and instructions to be used by these schools in responding to the requests for data. Standardized formats would ensure greater accuracy and consistency of data reported by these schools.

VIII. RESOURCE REQUIREMENTS—MANPOWER

The resources required for the development of data elements and information flow needed for the Manpower Requirements Projection Model would depend upon the approach taken by the Division of SE & PPS in that development effort.

If manual collection and tabulation of data were to be continued, time involved in the modification of forms, writing of instructions, design and installation of manual card file, and establishment of liaison with the computer facility for running the model, would require manpower time. Further, the development of forms and procedures for the collection of data on programs not now reporting to the Division, in conjunction with the Superintendents of Supervisory Unions, and the orientation of both state and local level staff to the system, as well as review of the forms and procedures during the implementation period, would add to the manpower requirement. This manpower requirement is estimated to consist of 1 man-month of special education staff effort, 2 man-months of systems analyst time, and 1 man-month of clerical time over an 18 month period. Maintenance of the manual system is estimated to require less than 2 man-months of cumulative effort annually.

If, as recommended, an ADP-based information system were to be developed, manpower would be required for overall system design, development of input documents, writing of procedures and instructions, establishment of liaison for information flow between the Division and the computer facility, programming, and other related tasks. Additional effort would probably be needed to extend the system, at the Supervisory Union level, to include programs not now reporting to the Division. Time required for such tasks as staff orientation to the system, review and de-bugging of the system during implementation, would further add to the total manpower requirement. Beyond this, approximately one man-month of systems analyst time, and one-half man-month of clerical time would be required each year for continued maintenance of the information flow and projection model.

IX. PERSONS INTERVIEWED

Miss Jean Garvin	Director, Division of Special Educational and Pupil Personnel Services, Vermont State Department of Education, State Office Building, Montpelier, Vermont
Mr. Dressel Coffin	Assistant Director, Division of Special Educational and Pupil Personnel Service, Vermont State Department of Education
Mr. Harold Crapo	Systems Analyst, Administrative Office, Vermont State Department of Education
Mr. Clifton Farrand	Coordinator, Patient Education, Vermont State Hospital (Vermont State Department of Mental Health), Waterbury, Vermont
Mr. Joseph Handy	Assistant Superintendent, Brandon Training School (Vermont State Department of Mental Health), Brandon, Vermont
Mr. Greenleaf	Superintendent, Weeks School (Vermont State Department of Corrections), Vergennes, Vermont
Mr. James Mann	Statistician, Statistics Division, Vermont State Department of Health, Burlington, Vermont

X. CURRENT REPORT FORMATS

Referral for Special Education
Report of Status Change
Staff Data Form, Card Code 1
Certification Data, Card Code 2
Assignment Data Form, Card Code 3

STATE OF VERMONT
DEPARTMENT OF EDUCATION
DIVISION OF SPECIAL EDUCATIONAL AND PUPIL PERSONNEL SERVICES
MONTPELIER, VERMONT

REFERRAL FOR SPECIAL EDUCATION

Name of child ______________________________ Date of Birth ___/___/___
last first M.I.

Name of parent(s) ☐
or guardian ☐ ______________________________

Mailing Address ______________________________ ____________
street city telephone No.

Child's town of legal residence ____________________

(REPRODUCED FROM STATE FORM)

APPARENT HANDICAPS	Primary	(check one)	Secondary
Educable Mentally Retarded	____		____
Trainable Mentally Retarded	____		____
Emotionally Disturbed	__		____
Physically Handicapped			____
Speech Impaired			____
Learning Disabled	____		____
Visually Handicapped	____		____
Hearing Handicapped	____		____
Other (Please specify)	____		____
None	____		____

SPECIAL EDUCATIONAL SERVICES REQUESTED:

Psychological - educational testing

Special Day School

Residential School

Consultation regarding problem

Spec. Equip. in regular school

Spec. Tutoring in regular school

Tutoring
____ home
____ hospital
____ convalescent home

Telephone service to school from
____ home
____ hospital
____ convalescent home

Other (specify)

Has psychological testing been administered ☐ yes ☐ no

Date of Test	Test Administered	Results (IQ)	Administered by
________	________	________	________
________	________	________	________

D45-18

READING READINESS TESTS

Date of Test	Test Administered	Form	Results	Administered by

SCHOOL RECORD

Did child attend nursery school or kindergarten? ☐ yes ☐ no

Where ____________________

Age of child on entering first grade ________ years ________ months

Has child repeated any grades ☐ yes ☐ no

Has child skipped any grades ☐ yes ☐ no Specify ____________

What school would child attend if not handicapped ____________ Name of School

____________ Address ____________ Superintendent

GENERAL INFORMATION

Area(s) of academic strength: ____________

Area(s) of academic weaknesses: ____________

(REPRODUCED FROM STATE FORM)

Description of child's emotional behavior: ____________

Description of Disabilities

Hearing ____________

Vision ____________

Speech ____________

Physical ____________

Hearing Aid ☐ yes ☐ no Prosthesis (specify) ☐ yes ☐ no

Glasses ☐ yes ☐ no Other (specify) ☐ yes ☐ no

List schools that child has attended:

(REPRODUCED FROM STATE FORM)

Dates	School	Address	Grades
______	______	______	______
______	______	______	______
______	______	______	______

The child is or has been under care of:

Department of Social Welfare ___

Department of Mental Health ___

Department of Health ___

Department of Corrections ___

Vocational Rehabilitation ___

Brandon Training School ___

Other (specify) ___

School Nurse ___

Physician ___

Dept. of Institutions ___

Community Mental Health ___

Child Development Clinic ___

Center for Disorders of Communication ___

Name of child____________________Town of Legal Residence____________

Referred by____________________Position____________________

I hereby refer the above named child to the Division of Special Educational and Pupil Personnel Services for testing and placement. Upon acceptance of said child under 16 V.S.A. § 2944 by the Commissioner of Education, the school district will reimburse the State Department of Education as specified in 16 V.S.A. § 2948.

____
Signature of Superintendent for School District

____
Telephone

____
School District

(this form replaces TR I and TR 1.5 and all other referral forms)

NOTIFICATION OF ACCEPTANCE AT____________________________

DATE ____________________________

Vermont State Department of Education - Montpelier, Vermont 05602

D45-20

DIVISION OF SPECIAL EDUCATIONAL AND PUPIL PERSONNEL SERVICES
STATE DEPARTMENT OF EDUCATION
MONTPELIER, VERMONT

REPORT OF STATUS CHANGE

NAME OF CHILD ______________________________ DATE OF BIRTH __________
Last First M.I.

ADDRESS OF CHILD ______________________________
Street/R.F.D. Town/City

TOWN OF LEGAL RESIDENCE ____________________

IN ALL CASES IN WHICH A CHILD CEASES TO BE ENROLLED IN YOUR SCHOOL, THE RECORDS OF SUCH CHILD MUST BE FORWARDED TO THE DIVISION OF SPECIAL EDUCATIONAL AND PUPIL PERSONNEL SERVICES.

FAILURE TO REPORT A CHANGE OF STATUS OF A STUDENT WITHIN 10 DAYS OF SUCH CHANGE MAY RENDER THE LOCAL EDUCATION AGENCY RESPONSIBLE FOR ALL COSTS OF EDUCATION INCURRED FOR SUCH STUDENT AFTER THE DATE OF STATUS CHANGE.

DATE OF STATUS CHANGE ____________________

EXPLAIN CHANGE IN STATUS

(REPRODUCED FROM STATE FORM)

☐ Enrolled
Level ________ Teacher ____________________ __________

School attended previously ____________________ __________

Address of school ____________________ __________

☐ Change of address - Previous Address ____________________

New Address ____________________

☐ Change of legal residence - Previous town of residence ____________________

New town of residence ____________________

☐ Child left school
Reason ______________________________

☐ Graduated
Indicate job placement ______________________________

☐ Transfer to another school

Name of school ____________________ Address ____________________

____________________ ____________________
Date Signature

____________________ ____________________
Program Title

STAFF DATA FORM

EDUCATION	DEPT. OF EDUCATION USE ONLY AUDITOR'S INITALS	SOCIAL SECURITY NO.	SCHOOL NUMBER	DATE OF BIRTH
	FULL TIME ☐ PART TIME ☐ (CHECK ONE)	NAME LAST	MAIDEN	FIRST MI
	ANNUAL SALARY (DOLLARS)			
	HOURLY RATE YES ☐ NO ☐ (CHECK ONE)			
	HOURLY PAY RATE (DOLLARS-CENTS)			
	SUPERINTENDENT'S INITIAL			

MALE ☐
FEMALE ☐
(CHECK ONE)

SINGLE ☐
MARRIED ☐
(CHECK ONE)

EDUCATION

- 00 LESS THAN HIGH SCHOOL
- 11 HIGH SCHOOL DIPLOMA
- 12 1ST YEAR OF COLLEGE
- 13 2ND YEAR OF COLLEGE
- 14 ASSOCIATE DEGREE
- 15 TWO YEAR GRADUATE
- 16 3RD YEAR OF COLLEGE
- 17 THREE YEAR GRADUATE
- 18 COMPLETED SENIOR YEAR OF COLLEGE (NO DEGREE)
- 19 BACHELORS DEGREE
- 20 BACHELORS DEGREE PLUS 30 HRS.
- 21 MASTERS DEGREE
- 22 MASTERS DEGREE PLUS 30 HRS.
- 23 OTHER SECON OR ADVANCED CERTIFICATE
- 24 DOCTORS DEGREE

(CHECK ONE)

DUTY 1	POSITION TITLE	AREA OF RESPONSIBILITY	LEVEL OF ASSIGNMENT	AVERAGE HOURS WORKED PER WEEK
DUTY 2	POSITION TITLE	AREA OF RESPONSIBILITY	LEVEL OF ASSIGNMENT	AVERAGE HOURS WORKED PER WEEK

1
CARD CODE

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ATTN: STATISTICS & INFORMATION
MONTPELIER, VERMONT 05602

708 MORLEY 70857

CERTIFICATION DATA

GRADES TO BE TAUGHT		SECONDARY SUBJECTS		SOCIAL SECURITY NO.	YR. LAST COURSE WAS TAKEN	STATE (CODE) GRANTING DEGREE	TYPE (CODE) INSTITUTION
— THRU — ELEMENTARY	— THRU — SECONDARY	— — (UP TO 3 SUBJECT CODES)					
NO. COLLEGE SEMESTER HOURS	TYPE CERTIFICATE (CODE)	MONTH - YEAR CERT EXPIRES	▨	NO OF YRS IN THIS SYSTEM	YEARS IN PUBLIC SCHOOLS	YRS. IN NON PUBLIC SCHOOLS	VOCATIONAL SPEC.
		LAST NAME		DUTY 3	POSITION TITLE	AREA OF RESPONSIBILITY	LEVEL OF ASSIGNMENT	AVG. HRS. WORK PER WEEK

SUBJECT CODES

01 AGRICULTURE
02 ART
03 BUSINESS
04 DISTRIBUTIVE EDUC.
05 ENGLISH
06 FOREIGN LANGUAGES
07 HEALTH OCCUPATIONS
08 HEALTH, SAFETY, DRIVER, PHYSICAL EDUCATION
09 HOME ECONOMICS
10 INDUSTRIAL ARTS
11 MATHEMATICS
12 MUSIC
13 NATURAL SCIENCES
14 OFFICE OCCUPATIONS
15 SOCIAL SCIENCES/STUDIES
17 TRADES AND INDUSTRIES
18 GENERAL ELEM/SECON EDUC.
19 SPECIAL EDUCATION
20 CO-CURRICULAR ACTIVITIES

GRADE CODES

40 PRE-KINDERGARTEN
30 KINDERGARTEN
20 UNGRADED
01 FIRST
02 SECOND
03 THIRD
04 FOURTH
05 FIFTH
06 SIXTH
07 SEVENTH
08 EIGHTH
09 NINTH
10 TENTH
11 ELEVENTH
12 TWELFTH
13 POST HIGH

CERTIFICATE CODES

EMR - EMERGENCY
2YR - TWO YEAR
3YR - THREE YEAR
5YR - FIVE YEAR
EPP - ELEM PROF PROBATIONARY
EPS - ELEM PROF STANDARD
HPP - SECON PROF PROBATIONARY
HPS - SECON PROF STANDARD
SPP - SUBJECT PROF PROBATIONARY
SPS - SUBJECT PROF STANDARD
SUP - SUPERINTENDENT

TYPE INSTITUTION CODES

1. STATE COLLEGE
2. STATE UNIVERSITY
3. OTHER PUBLIC INSTITUTION
4. NON - PUBLIC INSTITUTION

2
CARD CODE

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ASSIGNMENT DATA FORM

SUBJECT/ACTIVITY CODE	BOYS	GIRLS	MIN CLASS MEETS/WEEK	WEEKS CLASS MEETS/YEAR	GRADE	SOCIAL SECURITY NUMBER	SCHOOL NUMBER	(CHECK ONE) YES ☐ NO ☐ ITINERANT TEACHER
	PUPILS IN CLASS							

SUBJECT/ACTIVITY CARD	BOYS	GIRLS	MIN. CLASS MEETS/WEEK	WEEKS CLASS MEETS/YEAR	GRADE
	PUPILS IN CLASS				

SUBJECT/ACTIVITY CODE:
GRADE CODES:
SEE CODE BOOK.

(REPRODUCED FROM STATE FORM)

SCHOOL NUMBER:
THIS NUMBER CONTAINS 8 DIGITS.

ITINERANT TEACHER:
REFER TO INSTRUCTION BOOK BEFORE ANSWERING.

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3
CARD CODE

708 MORLEY 70859

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS
VERMONT

DATA ELEMENTS			STATE-APPROVED SCHOOLS			STATE INSTITUTIONAL SCHOOLS			NON-APPROVED PROGRAMS			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	**ENROLLED**	**AGE**	Currently received from Division	Would require tabulation of data items	Referral for special education form, and billing notices	Not now available at state level. While schools have not been tabulating these data elements, they can do so in the future	Could be requested directly from individual schools	Individual schools providing special education programs	No data on these programs is submitted to the Division	Division could work with superintendents of supervisory unions to establish procedures to monitor programs	Individual programs, probably monitored at the supervisory union level	
		HANDICAPPING CONDITION										
		EDUCATION PROGRAM										
	ON WAITING LIST	**AGE**	Form received for children identified	Can compare children enrolled with children identified								
		HANDICAPPING CONDITION										
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	**NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION**	**AGE**		Can check dates of referral each year	Referral for special education form							
		HANDICAPPING CONDITION										
	INTRA-STATE TRANSFERS	**AGE**	Basic form to obtain this data exists	Can modify form to specify type of transfer and handicap	Report of status change form							
		HANDICAPPING CONDITION										
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	**AGE**		Can modify form to specify reason for attrition and handicap								
		HANDICAPPING CONDITION										
		REASON										
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Not now done by Division	Data may be requested	Statistics Div., State Dept. of Health							
DATA USED TO SIMULATE SPECIAL EDUCATION	**EDUCATION PROGRAM MIX TRENDS**		Basic data currently available	Would have to be plotted by Division	Enrollment data now received							
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	**TARGET GROUP**	Established by Division		Published guidelines for handicap programs	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above	
		EDUCATION PROGRAM										
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Currently available within Division	Could be further refined to obtain more information	Printouts from educational statistics and information							

VIRGINIA STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

VIRGINIA STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Virginia and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

Virginia is in a good position to initiate the information flow necessary to provide the data required for the Manpower Requirements Projection Model utilization and for other special education planning and evaluation functions. A flow of data now exists from the local education agencies to the state Special Education Service Section but the set of data elements collected is incomplete for model needs. The Section is not currently receiving data from state and privately sponsored special education programs. Building upon the good rapport between local and state agencies and upon the existing data flow between the local agencies and the Special Education Service Section, Virginia should have little problem developing a more complete and automated information system relating to the handicapped child population and special education. A possible minor problem could arise in an attempt to develop a data flow between the local education agencies who do not provide any special education services and the Special Education Service Section. All factors considered, a data summary type of special education information system has a high probability of being developed and implemented in a relatively short period of time.

The proposed information system should result in successive improvements in the completeness and the accuracy of the data elements over time, with such validity being achieved within a few years at the most. Later documents pertaining to this project contain more information about methods which may be used to estimate some of the data elements until a good information flow is developed and validated.

Within the Department of Education, the data processing hardware available for use by the Special Education Service Section has the capability to handle the processing of the information in the data summary system, but computer time elsewhere will have to be leased to run the Manpower Requirements Projection Model.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The Virginia State Board of Education, appointed by the Governor, is directly responsible for the operation of local public education and is indirectly responsible for the educational program at the Virginia School for the Deaf and Blind at Hampton. Currently the Governor appoints a State Superintendent of Public Instruction to administer the Department of Education but the Superintendent may become an elected official in the near future. Within the Department's Division of Elementary and Special Education Service Section, consisting of a

Supervisor (Mr. James T. Micklem) and eight program area Assistant Supervisors, is responsible for approving and overseeing the conduct of the special education programs operated by the local education agencies (the school divisions). The Special Education Service Section assists and cooperates with the local divisions in developing new programs, in complying with the rules and regulations adopted by the State Board of Education, and in the administration of special education funds as appropriated by the State General Assembly. The State Board of Education appoints the Board which governs the Virginia School for the Deaf and the Blind at Hampton, but, other than receiving annual reports, has little control over the educational program operated by the school.

All other state operated special education programs in Virginia are the responsibility of the Executive Branch of the government and report to the Governor. The Virginia School for the Deaf and the Blind at Staunton is autonomous; the administrators of the school send their annual report to the Governor and a copy to the Superintendent of Public Instruction. Provision of special education services to all other blind and visually handicapped children is the responsibility of the Department of Education Services in the Virginia Commission for the Visually Handicapped. By law, each public school pupil must be tested annually (at the beginning of the school year) for sight and hearing defects and information about each visually handicapped child must be sent to the Commission.

The Department of Mental Hygiene and Hospitals operates two schools for the emotionally disturbed, and two schools for mentally retarded and convulsive children. In addition, the children in the six schools for juvenile delinquents operated by the Department of Welfare and Institutions, although now receiving mostly regular education are considered to need special education programs for the emotionally disturbed (socially aggressive).

The organization chart depicting the foregoing description is presented in Figure 1.

Since the two groups responsible for local and most state public special education programs report to different and independent portions of the government, there are no formal responsibility links, and any interdepartmental liaison is informal and voluntary. Currently, information is exchanged on an "as requested" basis.

Privately sponsored special education programs are not within the control of the State Department of Education but some handicapped children are provided financial assistance, from public funds, for tuition costs at private nonsectarian schools for handicapped children.

IV. DATA ELEMENT EVALUATION

In 1969-70, almost all of the 131 school divisions in Virginia are providing some type of special education services. Currently, all of the data about these locally sponsored programs originate from the person responsible for special education at the school division level, either a full-time Coordinator, Supervisor,

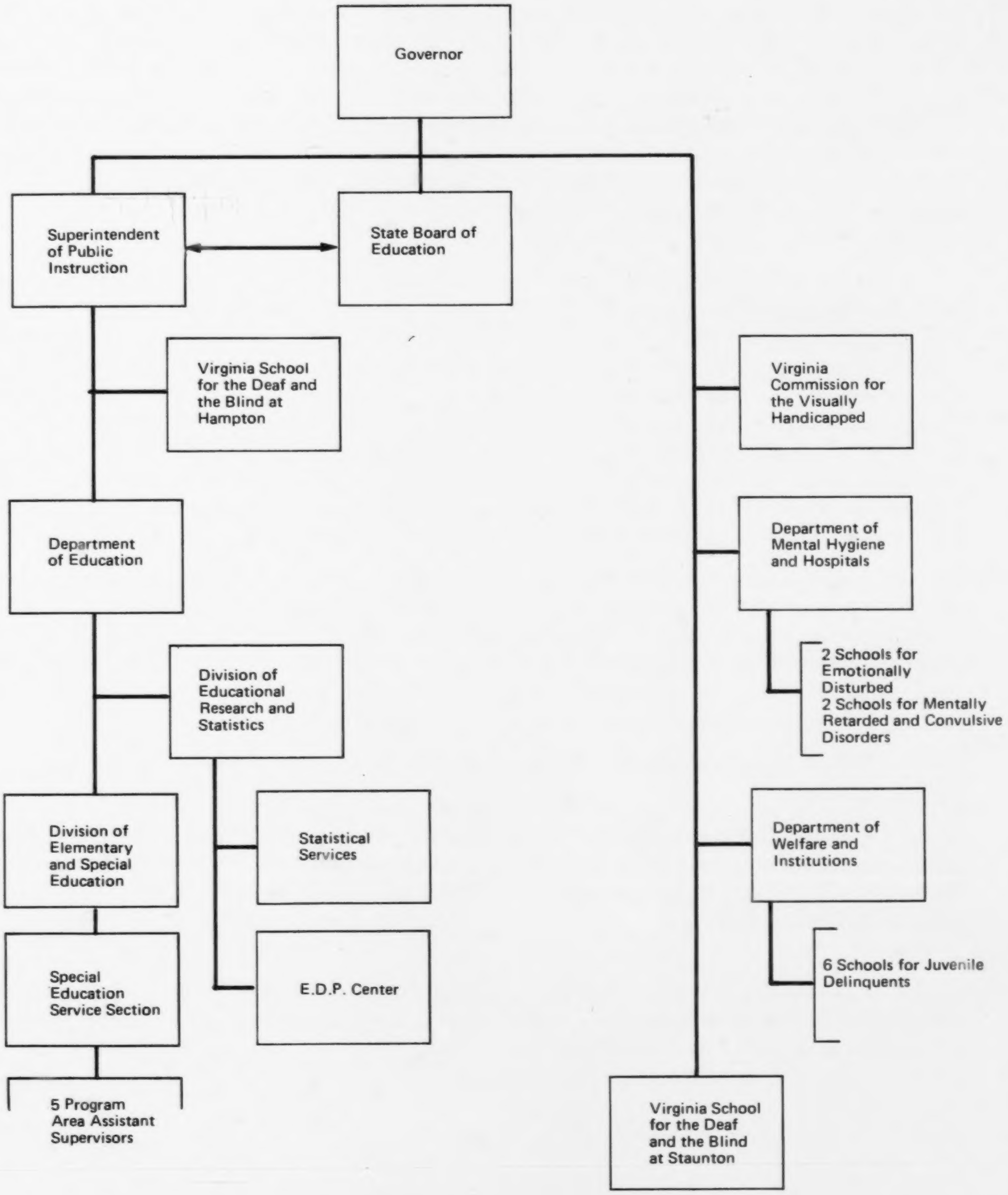

Governor
Superintendent of Public Instruction
State Board of Education
Virginia School for the Deaf and the Blind at Hampton
Department of Education
Division of Educational Research and Statistics
Division of Elementary and Special Education
Statistical Services
Special Education Service Section
E.D.P. Center
5 Program Area Assistant Supervisors
Virginia Commission for the Visually Handicapped
Department of Mental Hygiene and Hospitals
2 Schools for Emotionally Disturbed
2 Schools for Mentally Retarded and Convulsive Disorders
Department of Welfare and Institutions
6 Schools for Juvenile Delinquents
Virginia School for the Deaf and the Blind at Staunton

FIGURE 1. VIRGINIA ORGANIZATION CHART RELATING TO SPECIAL EDUCATION

or Director of Special Education, a Division Director of Instruction, or the Division Superintendent acting in that capacity part-time. Data for the state schools are not formally reported to the Special Education Service Section but could be requested from their administrators.

Currently, the only private school data available are gross totals about the number of children receiving tuition assistance from public funds. Any future data about private school programs could be reported on a voluntary basis by each private program.

In the following paragraphs, the data elements needed by the Manpower Requirements Projection Model and by the state for planning purposes are discussed in terms of their availability and development potential. Since the state personnel interviewed related that state policy considers it an invasion of privacy to maintain data by child name at the state level, the development of each data element should fit into the framework of a data summary type of information system, e.g., data reported in totals by age and handicapping condition, rather than a modified pupil accounting system.

Identified Handicapped Population

The number of children enrolled in special education is the first component of the most important data element, i.e., the number of children identified as needing special education, for local programs. This information is currently reported to the Special Education Service Section in gross total form (by handicapping condition and special class or special service educational program) at the end of each school year, on a form entitled "Special Education Summary Report" (see Section X, pages D46-21 and 22). More detailed year-end enrollment data could be collected by modifying the Summary Report or supplementing it with individual summaries of teacher/class reports. The former method would place the task of preliminary tabulation at the local school division level and the latter would place the task of complete tabulation at the state level, with the division staff having only to review each teacher/class report for completeness and accuracy. This latter method could also be used to collect beginning-of-the-school-year enrollment data by supplementing the existing set of forms entitled "Request for Allocation of State Funds for Special Education" (see Section X, pages D46-17 thru 20), which currently request personnel information only.

It should be a relatively simple task to design either (1) a simple matrix form (or set of forms) to request enrollment data from the divisions by handicapping condition, educational program, and single year of age, or (2) a teacher/class report form having enrollment summarized by age to request the data from each special education teacher. Since the names of the children in each class are not required or desired at the state level, each newly designed teacher/class report form could contain the summary data on a detachable portion of the original report, as submitted to the local school division, or could be a separate teacher-to-state data form.

The number of children on special education waiting lists, the second component of the identified handicapped child population, should be complete at the local school divisions operating special education programs, but none of the local divisions report this information to the state except in the area of speech correction service (on the Special Education Summary Report). Each school division keeps records about each child identified as needing but not receiving special education, i.e., a waiting list. Thus, if the local divisions can be convinced of the value of their aggregating the data by age and of the state's keeping track of these data for planning purposes, the number of children on the waiting lists, could be reported by age and handicapping condition on a simple matrix form, at the same time as enrollment data are reported.

A set of similar matrix forms could be used to request enrollment and waiting list data from the private schools and the state schools, hospitals and institutions operating special education programs. A validity problem may arise with the latter data element if a large proportion of the children on the waiting lists for state operated programs are being served in local programs or have moved out of the state. If this is determined to be the case, the request for state program waiting list data could be dropped.

Unidentified Handicapped Population

Since no complete and systematic diagnostic referral system now exists at the state or local level in Virginia, data on the unidentified handicapped child population will probably have to be estimated using the BEH published prevalence rates that the Special Education Service Section currently uses. This estimation of the unidentified population would be used rather than an estimate of the potential undiagnosed waiting list based on the diagnostic waiting list. The estimated prevalence rates are:

- Educable mentally retarded — 2.0%
- Trainable mentally retarded — 0.3%
- Emotionally disturbed — 2.0%
- Speech handicapped — 3.5%
- Hearing impaired — 0.6%
- Visually handicapped — 0.09%
- Physically handicapped — 0.2%
- Learning disabled — 0.3%.

Using prevalence rates is an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternative methods of validating these rates.

Entrants and Attritions

Information about the numbers of children moving into and out of the identified handicapped child population is not currently collected except for the number of pupils released as corrected from speech correction service.

Most of the special education diagnoses are conducted at the school division level for children who have been referred by parents, classroom teachers, and the visiting teachers (school social workers). Each school division could be asked to report information about these diagnoses if a structured diagnostic reporting system exists or can be initiated within the division. The remaining diagnoses are conducted at hospitals operated by the Department of Mental Hygiene and Hospitals, the diagnostic clinics operated by the Department of Health, the mental retardation diagnostic services operated by the Bureau of Crippled Children, and the offices of private psychologists and physicians. The cooperation of these state agencies and private diagnosticians can be enlisted to report the newly diagnosed children to the applicable local school division by child name, age, address, parent name, and handicapping condition. A structured diagnostic reporting system could be set up in Virginia and the Special Education Service Section could query the central source (i.e., each division) for the information. The authorized official responsible for special education in each school division could use a simple matrix form to report the totals, by age and handicapping condition, of those children who are newly identified as needing special education.

Data about new entrants to the handicapped child population and about intrastate transfers (new entrants to a local divison who have been previously diagnosed by another division within the state) can be collected from the divisions either at year end or periodically during the year, depending upon the design of the information system, the level of processing automation, and the degree of currentness desired for the system. In either case the data should be aggregated to represent during-the-year totals from which incidence rates can be calculated.

Information about attritions from the total identified handicapped child population should be easy to develop if the cooperation of the local school divisions is obtained. Attrition data could be collected, by age, handicap, and reason for attrition (e.g., return to regular education, moved out of division), on a simple matrix form similar in design to those used to collect waiting list and entrants data.

Entrants and attritions data should be kept by, and collected from, the local districts for the total identified population, not for the enrolled and waiting list populations separately. This will avoid possible double counting; a child who moves from the waiting list to the enrolled list should not be counted as an attrition or a new entrant—he has remained in the handicapped child population and merely changed his educational status.

Similar matrix forms could be used by the Special Education Service Section to request entrants and attrition data from the state operated and privately operated programs. Here again, unless the state school, hospital or institution maintains an up-to-date waiting list, the validity of entrants and attrition data (especially these data relating to children on that waiting list) may suffer.

Other Data Elements

The analysts were unable to determine the availability of detailed projections of Virginia's school age population, used in conjunction with incidence rates by the Manpower Requirements Projection Model to calculate the projected number of new entrants into the handicapped child population. Within the Department of Education, the Special Studies Section projects only public school enrollment by grade, K-12. Other state government agencies, e.g., a department of finance and administration, and universities should be contacted to determine the possible existance of reliable and detailed (i.e., by single year of age) school age population projections.

The Supervisor of the Special Education Service Section and/or his staff can provide the data needed to simulate special education with a minimum of reporting of program policy from state operated and privately operated programs. Thus, little development effort is needed for these data elements:

- Trends in the number or proportion of enrolled children being served in each educational program, by target group (an educationally meaningful combination of handicapping condition and education level); termed educational program mix
- The types of personnel (occupations) serving each target group in each educational program and their associated personnel/pupil contact ratios.

Virginia currently collects detailed information about the special education personnel employed, by type, as of September 1. If the handicapped child population data are collected at the end of the school year, and if the numbers of personnel employed do not change significantly from the beginning to the end of the school year, these summarized personnel data could be used in conjunction with the output from the model to calculate the current manpower gap. The number of personnel employed in state operated and privately operated special education programs could be requested to be reported to the Special Education Service Section either on a simple matrix form or informally in a letter.

V. PROCESSING POTENTIAL

All state level offices in the Department of Education are supported by the Division of Educational Research and Statistics. Assistance with forms design and systems analysis is performed by the Division's Statistical Services branch, headed by Mr. Howell Gruver, Supervisor. The staff of this branch includes an Assistant Supervisor and two systems analysts. The Division's EDP Center, headed by Mr. Robert L. Hinson, has three computer programmers and a sufficient keypunching and computer operating capability to prepare input for and run all approved data processing requests. Output evaluation is performed in the Division's Special Studies Section, headed by Mr. Philip Baepple. If availability does not become a constraint, the Division's staff is capable of assisting the Special Education Service Section in the development and implementation of a data summary type of information system and in the utilization of and interpretation of the results of the Manpower Requirements Projection Model.

Currently, the Division of Educational Research and Statistics is involved in the collection and processing of teacher data to produce reports such as the number of teachers certificated (by type), teacher daily assignments for the school year, and the annual report of instructional personnel. Other than program information such as enrollments by grades and by specific courses and their pertinent summaries, all information handled by the Division pertains to personnel. Mr. Gruver indicated a willingness to assist the Special Education Service Section in any way possible in the design and implementation of an information system, and in the collection and processing of data, exclusive of work at the local level, e.g., orientation of local personnel to new forms and reporting procedures.

At the present time, an IBM System 360/Model 25 computer is being installed by the Division to replace their IBM 1440. This new system, with its two magnetic tape units and two disk units, is adequate to handle a data summary type to special education information system but its storage capacity is too small to handle the Manpower Requirements Projection Model. In order to run the model, time on another state government agency's computer or the BEH computer could be leased for a small charge. It might be possible to obtain the small amount of computer time (less than one half hour) needed by the model at no charge on a nearby university's computer.

Mr. Micklem, the Supervisor of Special Education Service, is in favor of using the mathematical model (1) to project special education manpower requirements (and the handicapped child population), (2) to assist other state planning functions (especially program planning and evaluation), and (3) to validate the need for increases in legislative appropriations. He, his staff, and the staff of the Division of Educational Research and Statistics are capable of preparing the input for and analyzing and evaluating the output from such a model. Mr. Micklem also indicated a willingness to undertake any work necessary to assist and direct the implementation of a special education data collection and processing system.

VI. ADDITIONAL FACTORS

Education of visually handicapped children, currently directed by the Virginia Commission for the Visually Handicapped, may become the responsibility of the Special Education Service Section in future years. This move will facilitate the data collection for these programs and further unify the special education planning responsibilities (education for the deaf became the Section's responsibility this year).

The move is underway in Virginia to require that all special education personnel be endorsed in their specialty in addition to being certified as teachers.

Such action will enable the Special Education Service Section to maintain a high level of program standards. Also with an eye to maintaining and setting program standards, Mr. Micklem hopes to hire a special analyst for planning and research as an addition to his staff. This analyst would be responsible for overseeing the special education information system and would be able to use the Manpower Requirements Projection Model.

In the diagnostic area, the state has a long standing policy of reimbursing local school divisions for the psychological evaluations of children found eligible for special education. In return, the local division must agree to try to place the child in a special program. This reimbursement helps divisions without a full time psychologist to contract for such services on a part-time, as needed basis.

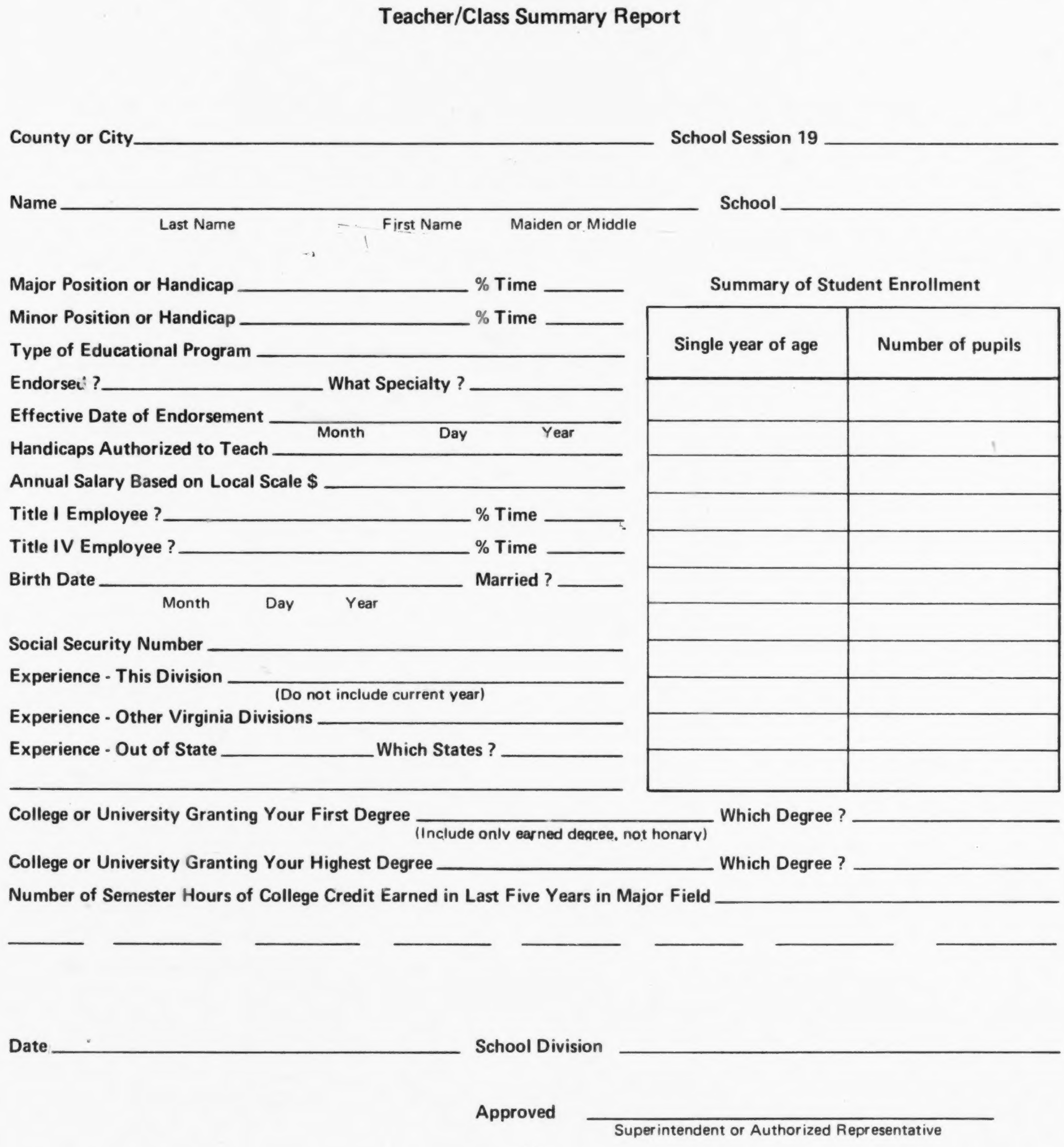
VII. RECOMMENDATIONS

In order to provide for data needs of the Manpower Requirements Projection Model and other data requirements of the Special Education Service Section, it is recommended that Virginia consider implementing a detailed data summary type of information and processing system (one in which the data elements are summarized into categories by the local school divisions and other data sources and are used in summary form by the state information system). To initiate this system, the current year-end "Special Education Summary Report" could easily be modified to collect summarized enrollment data, by age, handicapping condition, and type of educational program. The modified form would be similar to the form recommended for collecting entrants data (see Figure 3); it would contain a set of simple matrices, one for each education program, in which each row is a single year of age and each column a handicapping condition.

However, if it is decided to shift the burden of summarization to the state level, a teacher/class report form could be designed that would have the additional benefit of being able to collect special education personnel data concurrently. In this latter case, it would be most desirable to have all of the personnel data reported at the beginning of the school year, as state funding is based upon such data. An example of such a teacher/class report is presented in Figure 2.

It is recommended that the remaining data for the data summary system be collected on simple matrix forms. Enrollment and waiting list data for state operated and privately operated special education programs and waiting list data for locally operated programs should be requested on a matrix in which each row is a single year of age and each column is a handicapping condition.

Similar matrices should be used by all sources to report entrants to and attritions from the total identified handicapped child population. These data summary matrices should have subcategories within each handicapping condition: subcategories for source (newly diagnosed and intrastate transfer) in the entrants matrix form; and subcategories for reason (return to regular education, moved, etc.) in the attrition matrix form. An example of a simple matrix form, one for reporting new entrants, is presented in Figure 3. Blank copies of



Teacher/Class Summary Report

County or City ______________________ School Session 19 ______

Name ______________________ School ______
Last Name First Name Maiden or Middle

Major Position or Handicap ______ % Time ______

Minor Position or Handicap ______ % Time ______

Type of Educational Program ______

Endorsed ? ______ What Specialty ? ______

Effective Date of Endorsement ______
Month Day Year

Handicaps Authorized to Teach ______

Annual Salary Based on Local Scale $ ______

Title I Employee ? ______ % Time ______

Title IV Employee ? ______ % Time ______

Birth Date ______ Married ? ______
Month Day Year

Social Security Number ______

Experience - This Division ______
(Do not include current year)

Experience - Other Virginia Divisions ______

Experience - Out of State ______ Which States ? ______

______

Summary of Student Enrollment

Single year of age	Number of pupils

College or University Granting Your First Degree ______ Which Degree ? ______
(Include only earned degree, not honary)

College or University Granting Your Highest Degree ______ Which Degree ? ______

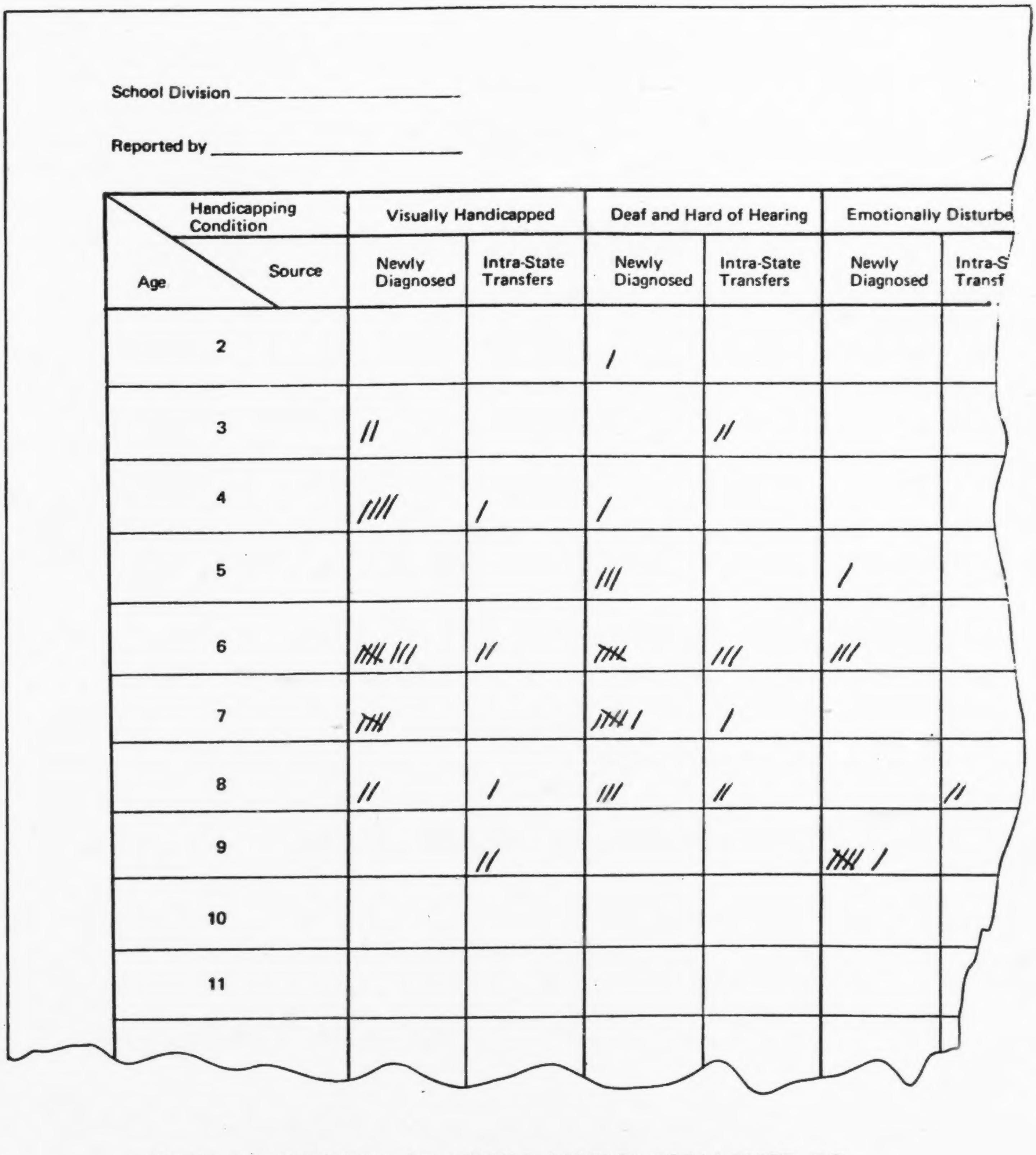
Number of Semester Hours of College Credit Earned in Last Five Years in Major Field ______

______ ______ ______ ______ ______ ______ ______ ______

Date ______ School Division ______

Approved ______
Superintendent or Authorized Representative

FIGURE 2. EXAMPLE OF A TEACHER/CLASS SUMMARY REPORT



School Division ____________________

Reported by ______________________

Handicapping Condition / Age, Source	Visually Handicapped		Deaf and Hard of Hearing		Emotionally Disturbe	
	Newly Diagnosed	Intra-State Transfers	Newly Diagnosed	Intra-State Transfers	Newly Diagnosed	Intra-S Transf
2			/			
3	//			//		
4	////	/	/			
5			///		/	
6	~~////~~ ///	//	~~////~~	///	///	
7	~~////~~		~~////~~ /	/		
8	//	/	///	//		//
9		//			~~////~~ /	
10						
11						

FIGURE 3. EXAMPLE OF SIMPLE MATRIX FORM USED TO COLLECT LOCAL DIVISION DATA ABOUT NEW ENTRANTS TO THE HANDICAPPED CHILD POPULATION DURING THE YEAR AND EXAMPLE OF HASH-MARK ENTRIES

these matrix forms can be used, by the local divisions and other data sources to record the data in a hash-mark fashion during the year. The totals could then be transferred to a new set of matrix forms for transmittal to the Special Education Service Section.

The timing of the data flow in a data summary type of system is very important. Ideally, all enrollment and waiting list data and personnel employment data should be reported as of the same point in time. Currently in Virginia, personnel employment data are reported as of September 1 (by September 20) while enrollment data is reported as of no specific year-end date (by June 15). If the special education information system is designed so that both are reported as of nearly the same point in time, it is recommended that the enrollment data collection be shifted to an "as of September 15" schedule. All waiting list data should be reported as of the same date as enrollment data.

There are two alternatives to the timing of the entrants and attrition data reports. The reports can be made once a year or periodically during the year. Assuming for the sake of discussion that enrollment data are to be reported as of September 15, if the former schedule is selected the entrants and attrition reports should be completed as of September 15 and should contain the data for the previous data year—thus, an attrition report sent to the Special Education Service Section soon after September 15, 1971, would contain the number of children that had attrited from the identified handicapped child population during the year, September 15, 1970, to September 14, 1971. Using the same assumption, if the latter schedule is selected, the final periodic reports should be sent to the Special Education Service Section as of September 15 and should reflect all entrants and attritions since the previous periodic reports so that entrants and attritions occurring during the summer months will be recorded and reported. An example of a periodic schedule would be one requiring three reports each year—the first as of February 1, the second as of June 15, and the third as of September 15.

The data summary matrix forms recommended can easily be keypunched and then tabulated on the computer in the Division of Educational Research and Statistics.

VIII. RESOURCE REQUIREMENTS—MANPOWER

In order to implement the recommended data summary system in Virginia, it is estimated that one man-month will be required to design the data collection instruments and to obtain approval of the new forms. In addition, approximately four man-weeks of a systems analyst/programmer's time will be needed to accomplish the required systems design and computer programming/debugging for the data summary system.

The task of coordinating with the local school divisions (i.e., training local district personnel to fill out the new forms, engendering local support for the information system, and ensuring completeness and validity of the reported data) should be done by the staff of the Special Education Service Section, because they are the only state level personnel that are familiar enough with the situations in the local districts to make accurate judgments about the completeness and validity of the data. This task is estimated to require approximately 2-3 man-months of effort. If the Section is able to hire the desired special analyst for planning and research, he will be able to oversee, coordinate, and assist the current staff in this task during the big push to get the system initiated, i.e., the first year of any system implementation. Thereafter, the task of ensuring that the data is reliable will require very little effort (approximately 1 man-month annually) on the part of the Section's staff; the majority of their effort will be directed toward the training of personnel and the setting up of reporting procedures for new special education programs.

The Director of the Division of Elementary and Special Education and the Supervisor of the Special Education Service Section, by virtue of their positions and influence, are probably the only persons who can arrange for the cooperation of state sponsored programs and the office of the Superintendent of Public Instruction and who can approach the privately sponsored programs. The amount of time that this will take is dependent upon the attitudes and the organizational structures of all the agencies and organizations involved.

IX. PERSONS INTERVIEWED

The persons interviewed by the ORI (Leasco) representatives, Miss Beverly Johns, Mr. Michael Brown, and Mr. John O'Donnell, during the week of 6 August 1969 were:

Mr. James T. Micklem	Supervisor, Special Education Service, Division of Elementary and Special Education, Department of Education
Mr. Wayne B. Largent	Assistant Supervisor for Title VI Programs, Special Education Service
Mrs. Lucille T. Anderson	Assistant Supervisor for Emotionally Disturbed Programs, Special Education Service
Mrs. Lucille J. Clarke	Assistant Supervisor for Speech Programs, Special Education Service
Mrs. Helen J. Hill	Assistant Supervisor for Visiting Teacher Programs, Special Education Service
Miss Esther R. Shevick	Assistant Supervisor for Elementary EMR, and TMR Programs, Special Education Service
Mrs. Katherine Kerry	Regional Assistant Supervisor for Northern Virginia, Special Education Service
Mr. Charles E. Clear	Director, Division of Research and Statistics, Department of Education
Mr. Howell L. Gruver	Supervisor of Statistical Services, Division of Research and Statistics
Mr. Robert L. Hinson	Supervisor of EDP Center, Division of Research and Statistics
Mr. John L. Knapp	Chief, Research Section, Division of State Planning and Community Affairs, Office of Administration, Governor's Office
Mr. Denis Holmes	Director, Department of Educational Services, Virginia Commission for the Visually Handicapped

X. CURRENT REPORT FORMATS

- Special Education Program Forms
- Special Education Summary Report

COMMONWEALTH OF VIRGINIA
STATE BOARD OF EDUCATION
Richmond 23216

(REPRODUCED FROM STATE FORM)

SUPTS. MEMO. NO. 5381

August 16, 1968

TO: Division Superintendents

FROM: S. P. Johnson, Jr., Director of Elementary and Special Education
James T. Micklem, Supervisor of Special Education

SUBJECT: Special Education Program Forms

Enclosed are forms for outlining your planned program for Special Education for the school year 1968 69. The information will be used to determine the allotment of State funds to your division for Special Education. Please note that we are requesting a listing of personnel actually employed as of September 1, 1968 and the number of hours of instruction for homebound children which you estimate will be provided by your division. If at a later date you employ a special education teacher, you may notify the Special Education Service, State Department of Education, giving the necessary information as to code, name, certificate held, degree held, years of experience and salary. This information will be added to your original request. This year we are requesting that the assignment of each person listed be identified by code. For your information, position codes are listed on an enclosed sheet.

Forms for requesting reimbursement for transportation, psychologists, psychological evaluations and other costs for which State funds are allotted will be sent to you at a later date.

While no State funds are available for reimbursement for the position of a Coordinator, Supervisor, or Director of Special Education, many division superintendents have employed personnel with this responsibility. Therefore, the attached form has a line for the division superintendent to indicate the name and title of the person whom he has designated to serve in this capacity. If no name is listed, it will be assumed that the division superintendent fills this role. Also, we are requesting that you name the person in your division responsible for the distribution of Braille and/or Large Type books if different from the person you designate as coordinator.

Also enclosed is a form for reporting special education classes or services which are provided through local and/or Federal funds only. This information, combined with that shown on your request for State funds, should give the Special Education Service complete information as to the special education services provided handicapped children in your division.

Please submit these forms in duplicate by September 20, 1968.

SPJ:JTM:nb
Enclosures

____________________ 19__19__

TO: Special Education Service, State Department of Education, Richmond 23216

FROM: __________________, Superintendent ________________ County, City

SUBJECT: Request for Allocation of State Funds for Special Education

In accordance with regulations promulgated by the State Board of Education, it is requested that an allotment of Special Education funds be made to ____________________________ (County, City) for the 1968-69 school session to assist in providing the services outlined below. It is understood that reimbursement will be made semi-annually on the basis of the actual services provided in the schools of this division.

PROPOSED SERVICES

Number		Total Cost	Approved from State Funds
_____	(1) *Teachers of special classes, speech therapists, and hearing conservationists (Includes the mentally retarded, emotionally disturbed, physically handicapped, neurologically impaired, speech handicapped, and hearing handicapped)	_____	_____
_____	(2) Teachers of hospital classes	_____	_____
_____	(3) Therapists, Occupational or Physical	_____	
_____	(4) Attendants in special classes (for trainable children and physically handicapped children only)		_____
	(5) Estimated hours of instruction for homebound pupils Individual - - - - _____ **Group - - - - - - _____	_____	_____
	TOTAL	_____	_____

(REPRODUCED FROM STATE FORM)

Date______________ Division Superintendent ____________________

*Please furnish detailed information on the attached sheet.

- -

On the basis of this request and in consideration of the State budget for Special Education, an allotment of $__________ is being made from State funds to ________________________ for Special Education services specified above.

Date______________ ____________________________
Director, Division of Elementary and Special Education

**Supts. Memo. No. 5306, April 22, 1968, outlines regulations governing group instruction of pupils unable to attend school.

D46-18

I. Teachers of Special Classes and Speech Therapists on Whose Salaries State Reimbursement is Requested

(Includes teachers of the mentally retarded, the emotionally disturbed, the physically handicapped, the neurologically impaired, the speech handicapped, and the hearing handicapped)

Name and title of person assigned supervisory or coordinating responsibilities for Special Education program. Also, name and title of person responsible for Braille and/or Large Type books if different from above ____________

County or City____________ 19__19__

						For Use by State Office	
1	2	3	4	5	6	7	8
*Class or Position Code	Name of Person	Certificate Held	Master's Degree	Total Years of Experience	Annual Salary Based on Local Scale	Salary State Minimum Scale	60% of Column 7

(REPRODUCED FROM STATE FORM)

List only those teachers actually employed as of September 1, 1968.
If additional teachers are employed at a later date, notify the Special Education Service giving the same information required on this form.

* See attached sheet for explanation of code.

II. Special education classes or services not included in the list for which State reimbursement is requested. This information, combined with that shown on your request for State funds, should give the Special Education Service complete information as to the special education services provided handicapped children in your division

	Type of Special Class and/or Services	
*Class or Position Code	Name of Person	Source of Funding

(REPRODUCED FROM STATE FORM)

* See attached sheet for explanation of code.

Date ______________

County or City____________ 19__19___

D46-20

(Rev. 5-1-69)

SPECIAL EDUCATION
SUMMARY REPORT

County or City ______________________________ School Session 19 _____

This form is to be submitted by all school divisions providing special education classes and services to handicapped children. (Note: Applies to all programs regardless of funding source). Upon completion, please forward the summary to the Special Education Service, State Department of Education, Richmond, Virginia 23216, no later than June 13, 1969.

Table No. 1: Special Classes

Classification	Number of Pupils	Number of Teachers
Physically Handicapped		
Hearing Impaired		
Emotionally Disturbed		
Mentally Retarded	Ed. Tr.	Ed. Tr.
Neurologically Impaired		
TOTAL		

Table No. 2: Children Receiving Special Services

Classification	Number of Pupil	of Teachers
Homebound		
Speech Handicapped		
Physically Handicapped		Omit
Hearing Impaired		
Emotionally Disturbed		Omit
TOTAL		

(REPRODUCED FROM STATE FORM)

Note: To avoid a duplicate count, no child should be listed in more than one category. In instances of multiple disability, report the current classification in which the child is being accommodated; e.g., a mentally retarded child who is also physically handicapped and in a program for educable mentally retarded would be reported as a mentally retarded child only. In instances where a child is based in a regular classroom but receives special help at regular intervals from a special education teacher, therapist, or a clinician, he should be listed in Table No. 2 opposite the appropriate classification.

Table No. 3: Handicapped Children Attending Private Schools

Name of School	Number of Pupils	Major Disability

Please record the number of handicapped children (ages 5 - 20) residing in your school division who attend a private school for handicapped children. Report only those children provided financial assistance on tuition costs from public funds.

OVER

D46-21

Speech Correction Service

	Elem. K-7	Sec. 8-12
1. Number of schools in school division		
2. Number of schools regularly scheduled for speech therapy		
3. Number of schools not regularly scheduled but receiving diagnostic and consultative service		
4. Number of schools not being served		
5. Number of pupils screened in speech		
6. Number of pupils on waiting list at end of year		
7. Number of pupils released as corrected		
8. Number of speech therapists in school division - Full time _____; Part time _____		
9. Number of speech aides		

10. Number of pupils enrolled in speech therapy
(articulation _____; stuttering _____;
cleft palate _____; cerebral palsy _____;
voice disorder _____; impaired hearing with
speech defect _____; delayed speech _____;
others _____.) TOTAL __________

Hearing Conservation Service

1. Number of pupils given audiometric tests . . . . __________

2. By whom were audiometric tests administered:
Hearing therapists _____ Speech therapists _____
Audiologists _____ Nurses _____ Other _____

3. Number of pupils found with hearing impairment . . . . __________

4. Number of pupils referred for medical attention . . . . . . __________

5. Number of pupils enrolled in classes for the hearing impaired __________

6. Number of puretone audiometers owned by school division . . __________

7. If none, do you have access to one? . . . . __________

* * * * * * *

Number of special education teachers and speech therapists for whom State reimbursement will be requested for the school year 1969-70 . . . . __________

* * * * * * *

Person completing this form ______________________
Name

____
Title

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS
VIRGINIA

DATA ELEMENTS			LOCAL PUBLIC SCHOOL DIVISION PROGRAMS: CURRENT STATUS	LOCAL PUBLIC SCHOOL DIVISION PROGRAMS: METHOD OF DEVELOPMENT	LOCAL PUBLIC SCHOOL DIVISION PROGRAMS: SOURCE OF DATA	STATE OPERATED PROGRAMS: CURRENT STATUS	STATE OPERATED PROGRAMS: METHOD OF DEVELOPMENT	STATE OPERATED PROGRAMS: SOURCE OF DATA	PRIVATE SCHOOL DATA
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Not available	Modify current school division report form(s) or develop new teacher/class report form	Person responsible for special education at school division level or classroom teacher	Not available except for gross totals from the two schools for the deaf and the blind	Develop simple matrix forms similar to ones used by local school divisions	Administrator of special education program(s) at each school	Gross enrollment totals available for children receiving public tuition assistance—on a voluntary basis, data could be requested to be transmitted to Special Education Service Section on modifications of simple matrix forms developed for use by school divisions
		HANDICAPPING CONDITION	Available						
		EDUCATION PROGRAM	Not available						
	ON WAITING LIST	AGE	Not available except for speech handicapped	Develop simple matrix to add to current school division report form	Person responsible for special education at school division level	Not available			
		HANDICAPPING CONDITION							
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not available	Develop set of simple matrix forms to add to current school division report form		Not available	Develop simple matrix forms similar to ones used by local school divisions	Administrator of special education program(s) at each school	
		HANDICAPPING CONDITION							
	INTRA-STATE TRANSFERS	AGE							
		HANDICAPPING CONDITION							
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Not available						
		HANDICAPPING CONDITION							
		REASON	Available for 1 reason for speech H. C.						
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Not available; only enrollment projections—K-12	Investigate other possible state agency or university sources	Department of Finance, University of Virginia				
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Available as defined by legislation, policy, and planning	Not applicable	Staff of Special Education Service Section	Not transmitted to Special Education Service Section	Request information about individual program policy	Administrator of special education program(s) at each school	Request voluntary information about individual school policy
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP							
		EDUCATION PROGRAM							
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Available for teachers; gross totals for other professionals and paraprofessionals	Slight modification of current school division report form	Person responsible for special education at school division level	Not available	Request data via letter or simple matrix form		Request voluntary data via letter or simple matrix format

WASHINGTON STATE ANALYSIS REPORT

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VI. RECOMMENDATIONS. D47-10

VII. RESOURCE REQUIREMENTS—MANPOWER D47-13

VIII. PERSONS INTERVIEWED D47-14

The research reported herein was performed persuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

WASHINGTON STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of this Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Washington, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

The present educational information system in Washington is well organized, operational, and automated. It provides a wealth of administrative and operational information and the Department of Special Education benefits from this established flow because it uses the same channels (local school district to state agency) to collect information it may require.

Not all the data elements required for the Manpower Requirement Projection Model are contained in the present system. If the model is to be applied provisions must be made for collecting the additional data. Some forms modification and adaptation will be required.

Because Special Education is presently receiving good administrative data, they will want to thoroughly evaluate the additional benefit potential of the model prior to modifying their present operational system. However, if they do apply the model the additional data should be available within one annual data cycle. The personnel involved are skilled and experienced in automated information systems usage.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The Office of the State Superintendent of Public Instruction is responsible for the public education in Washington. Within this Office the Department of Education is responsible for the operation of the public school system.

The Department of Special Education administers special education programs at the state level. Included among its many services are the review and approval of state funded special education programs, the allocation of available handicapped child educational funds, and the collecting and reporting of data about special education programs.

The local school districts are directly responsible for the operation of their public schools within State Board Regulations, and the administration of local special educational programs. If the requirement for special education services within a district is such that it warrants establishment of those services within the district, it is the district's responsibility to initiate the programs with guidance from the Department of Special Education. It is also possible for two or more school districts to develop cooperative programs, wherein one district offers services to other districts, or programs may be jointly operated by several districts.

The Department of Institutions has jurisdiction over and responsibility for handicapped children in day care centers, correctional institutions, schools for the deaf and blind (one each) and residential institutions for the retarded. However, the administrative responsibility for the operation of special education programs in State residential schools remains with the local school district.

IV. DATA ELEMENT EVALUATION

The Department of Education in Washington has a well organized education information flow established. Data flows from the local school districts to the state level and automated data processing procedures are utilized to produce informative reports. The Department of Special Education utilizes these channels to obtain the information it requires. In some cases, the same format is used.

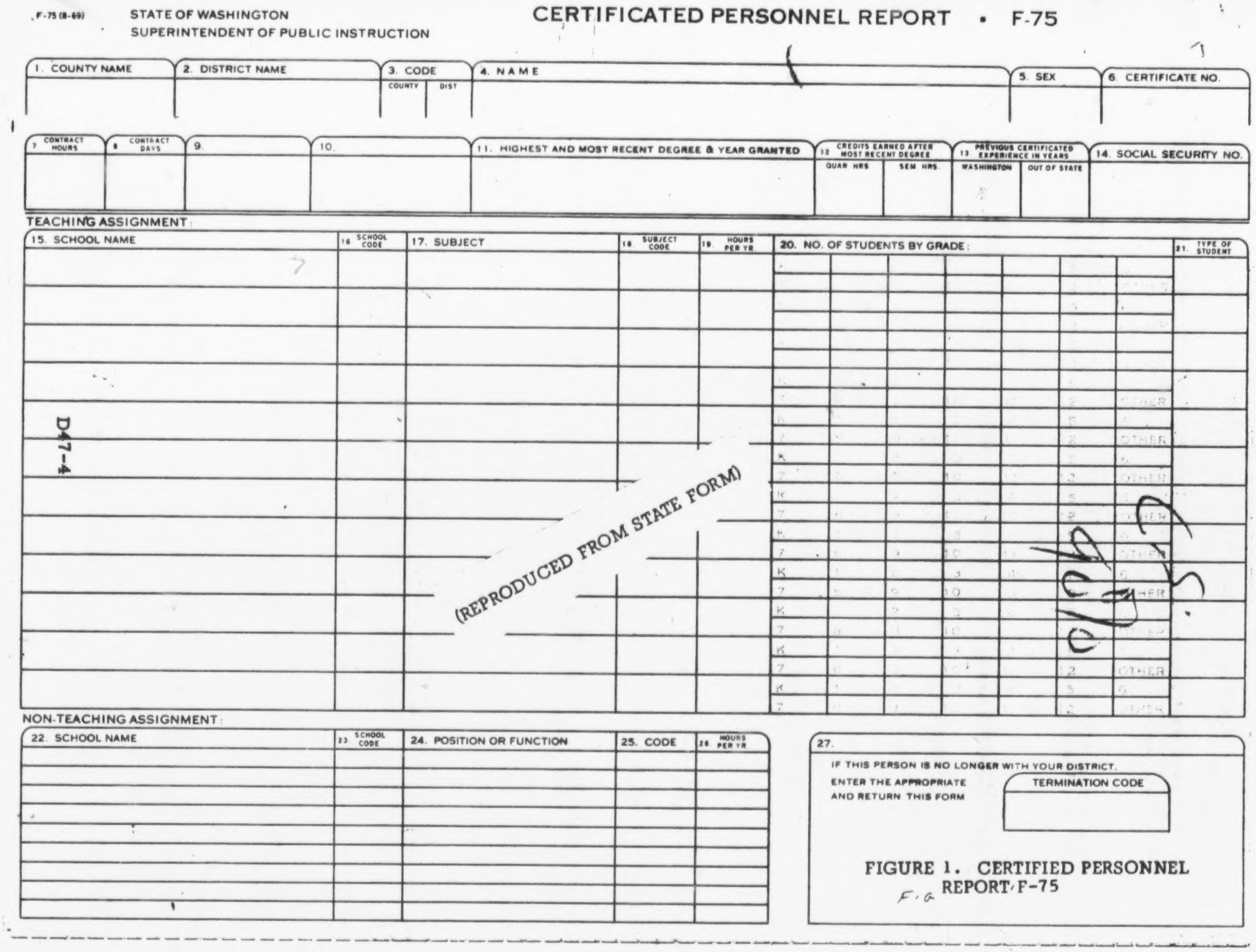
Special educational services are provided in state residential schools through the local school district in which the institution is situated. This arrangement should facilitate the reporting of special education information, through the local district, to the states central data collection point. The same forms and procedures as are used in the public school system may be employable. Private schools do not presently report to any state agency. However, it may be possible to obtain the necessary information on a voluntary basis, if the services rendered by private schools are of a magnitude that would affect state-wide planning.

The present information flow can be used to collect the data elements needed by the Manpower Requirements Projection Model. The information which these data elements provide may also be very useful to the Department of Special Education for other operational analyses. These data elements and their potential sources are discussed in the following paragraphs.

Number of Children Identified as Needing Special Education

The identified handicapped child population includes those children presently enrolled in special education classes, and those who have been diagnosed as requiring special education services and have been placed on waiting lists pending the availability of such services.

Enrollment. The enrollment data recorded on Form F-75 (Figure 1) includes the number of children in a class by handicapping condition and grade level. The handicapping condition is indicated by code number in column 21, "Type of Student". The model requires the number of students by individual year of age, rather than grade level. Grade level possibly could be translated into student age with sufficient accuracy if the children were normal. However, with handicapped children, the relationship is not valid, and in fact, the instructions do provide for recording "ungraded" children in the other column. A special education form similar to Form F-75 would use the boxes in section 20 for ages instead of grade level. There are 14 boxes which could be used to record age levels as "5 or under, 6, 7, 8, etc., through 18 or over." Of course, these ages are cited only as examples. The state would select those ages most meaninful to their policies and programs.



F-75 (8-69)

STATE OF WASHINGTON
SUPERINTENDENT OF PUBLIC INSTRUCTION

CERTIFICATED PERSONNEL REPORT • F-75

1. COUNTY NAME	2. DISTRICT NAME	3. CODE COUNTY	DIST	4. NAME	5. SEX	6. CERTIFICATE NO.

7. CONTRACT HOURS	8. CONTRACT DAYS	9.	10.	11. HIGHEST AND MOST RECENT DEGREE & YEAR GRANTED	12. CREDITS EARNED AFTER MOST RECENT DEGREE QUAR HRS	SEM HRS.	13. PREVIOUS CERTIFICATED EXPERIENCE IN YEARS WASHINGTON	OUT OF STATE	14. SOCIAL SECURITY NO.

TEACHING ASSIGNMENT:

15. SCHOOL NAME	16. SCHOOL CODE	17. SUBJECT	18. SUBJECT CODE	19. HOURS PER YR.	20. NO. OF STUDENTS BY GRADE:	21. TYPE OF STUDENT

D47-4

(REPRODUCED FROM STATE FORM)

C-S
9070

NON-TEACHING ASSIGNMENT:

22. SCHOOL NAME	23. SCHOOL CODE	24. POSITION OR FUNCTION	25. CODE	26. HOURS PER YR.

27.

IF THIS PERSON IS NO LONGER WITH YOUR DISTRICT,
ENTER THE APPROPRIATE
AND RETURN THIS FORM

TERMINATION CODE

FIGURE 1. CERTIFIED PERSONNEL REPORT F-75

F.G

The Manpower Requirements Projection Model contains the capability to consider the effect on manpower requirements because of variations in personnel/pupil contact ratios based upon the type of educational program. Although a variety of types of programs (residential special class, full-time special education in a day class, part-time special education and part-time regular education class, resource room, etc.) are available in Washington, data by education program is not available under current data collection procedures. To accomplish the collection of this data element, the local districts would have to receive education program definitions and then identify the classes accordingly on the special education form. It may be possible to provide additional "Subject Codes" for entry into column 18 that would also identify the educational program category into which the class fits.

Waiting List. The other facet of the identified handicapped child population, those that have been identified and are awaiting special education services, must be considered when planning for the total services required.

The State of Washington has the mechanism for collecting waiting list data, if in fact, the local districts do undertake diagnosis of children beyond their immediate capacity to provide services. Page 8 of Form HC-R/SD (Figure 2) asks for school districts to report the number of pupils who are identified as handicapped and who will be placed on waiting lists. This form further requests that these numbers not be estimates, but the names should be on register in the district.

The form asks that the number of children be reported by handicapping condition and education level. A minor forms modification similar to that suggested for section 20 of Form F-75 would facilitate the reporting of these children by single year of age.

Number of Children Moving Into/Out of Identified Handicapped Child Population

The rate of transience of children into and out of the handicapped child population is important to the determination of the amount of services that should be made available. Newly diagnosed, intra-state transfers and attritions must be accounted for if the handicapped child population count is to be reasonably accurate. Currently, no data is collected or accumulated which will provide the necessary information.

Newly Diagnosed. Washington applies national prevalence rates to its general population figures to estimate its total handicapped child population. Using prevalence rates is an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be accomplished by collecting appropriate data, and improving it annually. Later documents pertaining to this project will contain more detailed descriptions of alternative methods of validating these rates.

Page Eight
Form HC-R/SD
1969-70

SCHOOL DISTRICT ____________________ NO. __________ COUNTY ____________________

REPORT THE NUMBER OF PUPILS 1/ IN YOUR SERVICE AREA WHO ARE EVALUATED AND IDENTIFIED AS HANDICAPPED AND WHO WILL BE PLACED ON WAITING LISTS IN 1969-70

(REPRODUCED FROM STATE FORM)

I. FOR SPECIAL CLASSES

Type of Handicap	Pre-sch. & Kdg.	Elem.	Jr. Hi.	Sr. Hi.	Total
A. Mentally Retarded (I.Q. 51-75)					
B. Mentally Retarded (I.Q. 50 or below)					
C. Visually Impaired					
D. Blind					
E. Hard of Hearing					
F. Deaf					
G. Socially Maladjusted					
H. Emotionally Maladjusted					
I. Orthopedically Impaired					
J. Neurologically Impaired					
K. Other					
COLUMN TOTALS (A.-K.)					

II. NUMBER OF ADDITIONAL CLASSROOMS NEEDED TO PROVIDE SERVICES FOR ABOVE PUPILS....................

III. FOR ITINERANT SERVICES

Type of Service	No. of Pupils
A. Speech/Hearing Therapy	
B. Psychological Service	
C. Resource Rooms	
D. Home/Hospital Instruction	
E. Physical Therapy	
F. Occupational Therapy	
G. Other	
TOTAL (A.-G.)	

IV. NUMBER OF FTE 2/ CERTIFICATED STAFF NEEDED TO PROVIDE ADDITIONAL SERVICES

A. Teachers	
B. Speech/Hearing Therapists	
C. Psychologists	
D. Directors	
E. Principals	
F. Others	
TOTAL (A.-F.)	

1/ Do not make estimates. Names of pupils counted on this page should be on a register in your district.

2/ Please report full-time equivalent staff needs to two decimal places, if necessary.

FIGURE 2. WAITING LIST REPORT

A record of newly diagnosed children, providing diagnosis is conducted without the restriction of capacity to serve an identified child, will provide the data which will validate the state's incidence rates. A procedure similar to that used for recording waiting list pupils can be used to record the children newly diagnosed during an annual time frame. A modified Section 1 of Form HC-R/SD, as suggested in the previous "Waiting List" discussion, could be used as the reporting mechanism. This separate record is suggested because it is not assumed that all children on the waiting list can be served within an annual time period, therefore, there may be holdovers and all waiting list pupils are not necessarily newly diagnosed.

Intra-State Transfers. Transfers within the state of children receiving special education services, while they do not change the state's total handicapped child population, should be accounted for separately. This will prevent a transfer from one LEA from being counted as a new enrollee in another LEA, thus creating an error in annual incidence count. The format for accounting for those transfers is included in the following paragraphs on "attritions". An analysis of transfers could also reveal the trend of movement according to the quality of special education services offered by various localities.

Attritions. Attritions and intra-state transfers out of an LEA constitute the deductions from the handicap child population of an LEA. The reporting means for collecting summarized attrition, and intra-state transfers data could be accomplished through the use of a form similar to the one shown in Figure 3. This form could be submitted at the same time as the Form F-75.

Examples of attrition codes that can be applied are:

Pupil returned to regular education procedures	A1
Transfer to another special education class within LEA	A2
Transfer to another LEA	A3
Mortality	A4
Left special education programs for other reasons (dropout, graduation, move out of state, etc.)	A5

The state may want to list additional causes for attrition to permit a more detailed analysis.

The suggested enrollment codes are:

New enrollment (first time in program, or inter-state transfer)	E1
Transfer from another class within LEA	E2
Intra-state transfer (transfer from another LEA)	E3

Enrollment Attrition Code	Age								
	3	4	5			18	19	20	21

FIGURE 3. ENROLLMENT/ATTRITION SUMMARY REPORT

These codes can be printed on the form for ready reference by the user.

This sample format illustrates a means of summarizing the data at the classroom level and making data aggregation at state level simpler.

General Child Population Projections

The projections of general child populations for 10 years forward by individual year and by single year of age is a model data element requirement. These are the values that will be applied to validated incidence rates in the forward projection (0-10 years) of the handicapped child population. Washington currently makes general child population projections for school age children by school year, from kindergarten through twelfth grade. Since they are based on "normal" child educational expectancy, they should be directly translatable to single year of age for the general child population.

Data Used To Simulate Special Education Requirements

The Manpower Requirements Projection Model has the capability of simulating manpower requirements based upon selected variations of input data. Two such data elements are education program mix trends and personnel/pupil contact ratios. A simulated change in the education program mix (for example, returning blind and deaf children to regular classes supplemented by resource room work instead of special classes) can be analyzed for its affect on manpower requirements. A proposed change in teaching technology that could effect the teacher/pupil contact ratio can be simulated to determine its affect on manpower requirements.

Education Program Mix Trends. There exists within the Department of Special Education the historical records to analyze enrollment and program mix trends by handicap condition. Program mix cannot be verified until such information is reported from the LEA. In the interim, the staff may be able to derive some model input data based upon experience.

Personnel/Pupil Contact Ratios. State guidelines prescribe for state-approved programs the maximum and minimum class sizes according to handicapping conditions and pupil age ranges (orthopedically handicapped excepted). Actual trends in ratios can be determined from an analysis of the enrollment reported on Form F-75.

Number and Type of Special Educators Employed

The determination of the special education manpower gap (the difference between projected requirements and present staff) requires an identification of the number of special education teachers, by type of handicap condition and education level, taught. In Washington, the occupation "Teachers of the Handicapped" applies to all certified personnel who educate handicapped children. There is no further occupational breakdown to identify personnel by specific handicap area skills, for example, Teacher of the Blind, Teacher of the Mentally Retarded, etc. However, personnel are employed by their capability to provide such specific services.

This occupational breakdown can be derived from information presently on Form F-75. The "Type of Student", column 21, identifies the teaching skills required by the teacher, and presumably, the capabilities of the teacher. For ease of computer input however, a special education version of Form F-75 could provide additional occupational codes for insertion in the "Subject Code" column.

V. PROCESSING POTENTIAL

The education information system now in use in Washington utilizes electronic data processing procedures. The Electronic Data Processing (EDP) Center, a function within the Office of Public Instruction, provides all the necessary services for the system. The Department of Special Education requires and receives the support of the EDP Center. Because data processing is already a "way of life" within the Office of Public Instruction, computer application for model utilization will present no technical problems. If the model is applied, the implementation could be accomplished within one annual data cycle.

Hardware

The Manpower Requirements Projection Model requires a 32K word memory. The IBM 360-30 computer available in the EDP Center will be adequate for model application if this storage capacity is available.

Personnel

The staff of the Department of Special Education is capable of the preparation of simulated inputs and the analysis of the results. Statistical assistance, input data collection and output formating support are provided by a Division of Administration and Finance analyst. Personnel to prepare the data for input and operate the equipment are available at the EDP Center.

Attitude

The concept of the Manpower Requirements Projection Model and the potential advantages for future planning were understood and appreciated by Dr. John Mattson, the Director of the Department of Special Education. Because the Department presently benefits from a well organized information system, a detailed evaluation of the model potential and the effect of the additional data element requirements on the present system, will have to be conducted prior to any modification of their present system.

VI. RECOMMENDATIONS

The following recommendations would, upon implementation, provide for the information flow of these data elements and add to the quantity of information available for special education program management. To utilize the Manpower Requirements Projection Model in Washington, some additional data elements will have to be added to the present educational information system. The following information which is not currently collected, would, upon implementation of these recommendations, become available at state level.

- Enrollment summaries by handicapping condition, single year of age, and type of educational program (residential school, day special class, special school, cooperative special class, resource room, etc.)
- Waiting list summaries by handicapping condition and single year of age
- Record of annual incidence by handicapping condition and single year of age
- Attrition data by handicapping condition and cause
- Current special education manpower supply by handicap education skills (Teacher of the Blind, Teacher of the Deaf, Teacher of the Mentally Retarded, etc.)

Those recommendations critical to model implementation are:

a. Consider a special education version of Form F-75 for the collection of special education data. This version of the form would be applied only to special education classes, in which case, both Form F-75 and its special education version, would have to be prepared if the data content of the present system is to be maintained. Some additional programming would be required to incorporate the special education data in the data bank.

   The adaptations of Form F-75 for special education purposes include:

   1. Since grade level for handicapped children is not always translatable to age, section 20 should be retitled to read, "No. of Students by Age". Each box would then represent an age rather than a grade.
   2. The educational program types should be defined in the form instructions and a code assigned to each. A column 21A could be added to record this code.

3. The model includes the capability to make projections by individual educational occupations. To utilize this model capability to make comparisons between projected requirements and present supply, a provision should be made to identify personnel by specific handicap educational skills rather than the general "Teacher of the Handicapped" category now reported to state level.

   This information can be deduced from the present Form F-75, but the assignment of occupational codes to each category and the entry in column 17 of the special education form, would prepare this data for easy input into the EDP system.

b. Another form currently in use that has characteristics very useful to the collection of model data element information is Form HC-R/SD, page 8. The recommended modifications or adaptation of this form are:

   1. Modify the form as suggested in the Data Element Evaluation section, to facilitate reporting of "Waiting List" children by single year of age rather than the present education level.

   2. Section 1 of the form can also be adapted to report the "Newly Diagnosed" so that annual incidence verification data may be developed.

c. It is recommended that a format similar to that shown in Figure 3 be implemented for summarizing the reporting of the occurrance of intra-state transfers and attritions. For ease of EDP input preparation, the causes of attrition and the sources of enrollment should be coded as outlined in the Data Element Evaluation section.

d. The determination of the unserved child population is dependent upon the application of current prevalence rates. Although the use of unvalidated prevalence rates (especially those of national or obsolete origin) is a convenient means of "guesstimating" the theoretical service requirements, even the "ball park" accuracy is questionable. The prevalence rates currently used in Washington should be reviewed in the light of current knowledge; and procedures should be initiated for validating prevalence rates. This should be a continuing process which will provide better and more accurate results with each data cycle.

e. Efforts should be made to solicit the voluntary participation of private schools and any other agencies that have handicapped child education responsibilities. The object of other agencies participation in the reporting system is to make available data that will represent the entire handicapped child educational area in the state. This will make manpower projections more representative of the state's total requirements, and because of the availability of consolidated data, will be useful to both the legislature and agency administrators in planning the overall direction of state's effort. This does not mean that any one agency would be assuming the functions of another, because each agency would be able to extract from the data bank that information which is pertinent to its own operation.

It may be possible for other agencies and private schools to use forms similar to those used for public school special education reporting.

VII. RESOURCE REQUIREMENTS — MANPOWER

Since a well established information system already exists, there should be little additional resources associated with obtaining the information necessary for the utilization of the Manpower Requirements Projection Model.

All of the skills requirements for model implementation are already available within the various departments of the Office of Public Instruction. Capability to simulate, analyze and utilize model output data exists in the Department of Special Education staff. Data processing talent is available in the EDP Center and statistical and input/output support can be provided by the Division of Administration and Finance Analyst.

The forms design and/or modification, instructions and modifications to the existing system are estimated to require approximately a one-half man-month of special education staff effort, one man-month of system analyst time, and one man-month for programming over a 12 to 18 month period. System maintenance should not require any more manpower resources than serve the existing system.

VIII. PERSONS INTERVIEWED

The persons interviewed by the ORI (Leasco) representative, Mr. Carl Koch, during the week of September 22, 1969, were:

Dr. John Mattson	Director, Department of Special Education
Wayne M. Spence	Supervisor, Department of Special Education
G. Newton Buker	Supervisor, Department of Special Education
Dr. A. Metcalf	Director of Research, Office of Public Instruction
Claude Kennedy	Analyst, Division of Administration and Finance

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS
WASHINGTON

DATA ELEMENTS			PUBLIC SCHOOL SYSTEM			STATE INSTITUTIONS			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Not reported	Implement form and procedures to supplement Form F-75	Classroom teacher	Not reported	Reporting is responsibility of local district in which the institution is located. Use same procedure as for public schools	LEA	Probably available on a voluntary basis. Possible to report on same forms as used in the public school system
		HANDICAPPING CONDITION	Available			Available			
		EDUCATION PROGRAM	Not available			Not reported			
	ON WAITING LIST	AGE	Not available	Modify page 8, Form HC-R/SD to report by age	LEA	Available at institution		Individual institution	
		HANDICAPPING CONDITION	Available						
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not available	Implement reporting format	LEA	Not reported to Department of Special Education		Individual institution	
		HANDICAPPING CONDITION							
	INTRA-STATE TRANSFERS	AGE	Not available	Implement attrition/enrollment reporting format	LEA	Not available		LEA	
		HANDICAPPING CONDITION							
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE				If available, not reported to Department of Special Ed.			
		HANDICAPPING CONDITION							
		REASON							
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Available by grade	Convert grade to age	Div. of Admin. and Finance				
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Data available in Special Education	Analyze available data	Department of Special Education				
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Available from guidelines	Not applicable	Handbook on Special Education for School Administrators	Available from guidelines	Not applicable	Handbook on Special Education for School Administrators	Same as above
		EDUCATION PROGRAM							
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Available but need refinement	Identify Special Ed. skills by category, code and report	LEA on Form F-75 supplement	Same status and development required as for public school system		LEA	

WEST VIRGINIA STATE ANALYSIS REPORT

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The research reported herein was performed persuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

WEST VIRGINIA STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of West Virginia and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of the report.

II. SUMMARY

The availability of data on handicapped children in West Virginia, while limited to a few major categories including enrollment and teachers, is very reliable due to an unusual check built into the forms. In addition, the available data is timely. The data that does exist at local levels but not at the state level can be secured with minimal changes to the present system, and the data that generally does not exist at any level has a good potential of being developed and reported to the state, due to the impending mandatory education for the handicapped.

In view of this mandatory legislation, which becomes effective in 1974, the role which the Division of Special Education intends to plan in identifying the type and number of special educators required by the counties to meet their obligations, it is apparent that the implementation of the Manpower Requirements Projection Model in the very near future becomes very advantageous.

Such implementation requires the assistance of an outside service bureau until the internal data processing group secures more machine capacity or a central state service bureau is established. The assistance of systems analysis talent from a source outside of the Division of Special Education will be necessary, especially in the implementation phase.

The attatude of the Director of Special Education and other state personnel toward the implementation and use of the model was favorable. Their cooperation was excellent.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The primary educational agency in West Virginia is the Department of Education, headed by the State Superintendent of Schools. The Superintendent has the responsibility for free schools in West Virginia.

The Department is organized into four Bureaus. Within the Bureau of Instruction and Curriculum is the Division of Special Education (see Figure 1).

The Division is charged by law with the following responsibilities:

- Stimulating and assisting county boards of education in establishing and maintaining special schools, classes, home-teaching, and visiting-teacher services.
- Cooperating with all other public and private agencies engaged in relieving, caring for, curing, educating, and rehabilitating exceptional children, and in helping coordinate the services of such agencies.
- Preparing the necessary rules, regulations, formulas for distribution of available appropriated funds, and reporting forms and procedures necessary to define minimum standards in providing suitable facilities for education of exceptional children; insuring the employment, certification and approval of qualified teachers and therapists subject to approval by the state board of education.
- Receiving from county boards of education their applications, annual reports, and claims for reimbursement from such monies as are appropriated by the legislature, auditing such claims, and preparing vouchers to reimburse to said counties the amounts due them.

The major function of the Division is that of giving direction to the organization and administration of those services provided by county boards of education for exceptional children, under the State program. These activities were in the following areas:

- Special classes for the mentally retarded
- Special classes for the physically handicapped and other health impaired (including hard-of-hearing, visually handicapped, cerebral palsied, orthopedically handicapped, emotionally disturbed).
- Speech and hearing
- Home instruction
- School-to-home telephone instruction

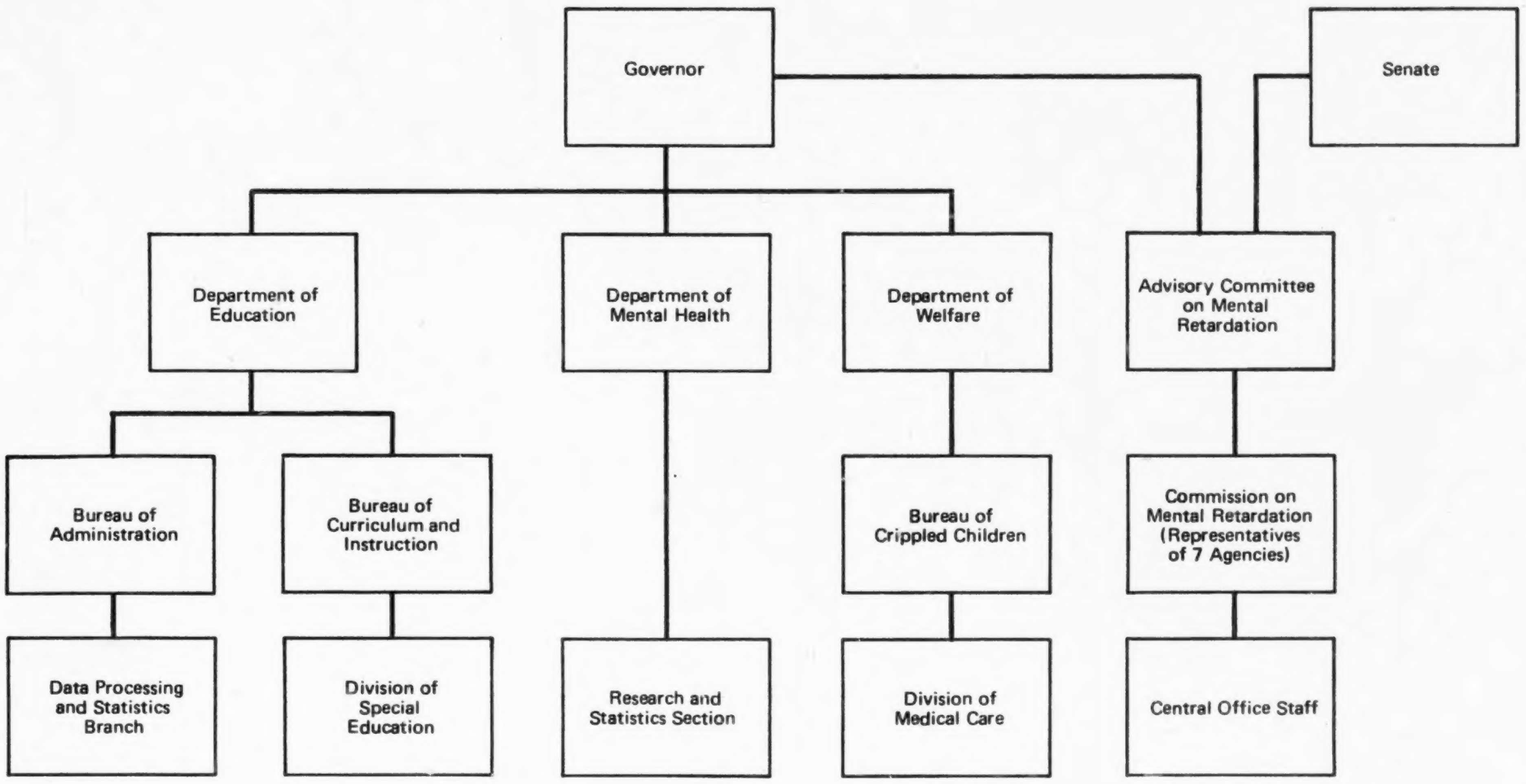
Governor
Senate
Department of Education
Department of Mental Health
Department of Welfare
Advisory Committee on Mental Retardation
Bureau of Administration
Bureau of Curriculum and Instruction
Bureau of Crippled Children
Commission on Mental Retardation (Representatives of 7 Agencies)
Data Processing and Statistics Branch
Division of Special Education
Research and Statistics Section
Division of Medical Care
Central Office Staff

FIGURE 1. WEST VIRGINIA STATE GOVERNMENT (AS PERTAINS TO THE MODEL AND HANDICAPPED CHILDREN)

- Resources for visually handicapped
- Out-of-state instruction.

The Bureau of Administration, Data Processing and Statistics Branch, is charged with providing statistical and data processing assistance to the entire department. At present very little of this type assistance is given the Division of Special Education because it has not been requested.

Other agencies in the West Virginia State Government charged with responsibilities for handicapped children are the Department of Welfare, Division of Medical Care, the Commission on Mental Retardation and the Department of Mental Retardation (see Figure 1).

The Division of Medical Care, Bureau of Crippled Children, provides mainly medical services for crippled children. The personnel of the Division, including social workers, psychologists, nurses, and doctors, conduct a variety of clinics and provide a variety of individual services. When special education is a possibility, these people refer the child to the Division of Special Education via the CC-1 form (discussed in the next section).

Recently this Division has become active in speech and hearing services in addition to evaluations and their goal is to expand as rapidly as therapists become available. This service is aimed at the severely, organically handicapped child. The speech and hearing evaluations provided or purchased by this group have been and will continue to be a source of referrals to the Division of Special Education for those with a speech and/or hearing functional disability.

The Department of Mental Health provides a variety of services for the mentally retarded and the emotionally disturbed through state hospitals, a state institution, community day and residential centers, and guidance centers.

The state institution for the mentally retarded, Colin Anderson Center, provides education and therapy services for mentally retarded children including those of preschool age.

This service, at the institution and the community day care centers, is also a result of the efforts of the Commission on Mental Retardation. The Commission created by the state legislature in 1964 is charged with the actions necessary to develop comprehensive state and community action to combat mental retardation. The commission comprises representatives from seven state agencies. The representatives are:

1. State Superintendent of Schools
2. Director of Health
3. Director of Mental Health
4. Commissioner of Public Institutions

5. Commissioner of Welfare

6. Director of Vocational Rehabilitation

7. Commissioner of Employment Security.

The central office staff reporting to the commission is fostering the growth of community day care centers. At present there are three, and they are designing to serve the mentally retarded who are not best served in public schools. If a child reaches the point where he can be served in a public school, he is referred to the Division of Special Education.

IV. DATA ELEMENT EVALUATION

Enrollment

The enrollment information required by the model includes three data elements. The number enrolled is needed by type of handicap, educational program, and single year of age.

These data elements are generally available in West Virginia through the combination of two forms. When a child has been diagnosed as needing special education services, application is made to the Division of Special Education on Form CC-1 (Section X, page 11) by the county supervisor or superintendent. This form contains age (birthdate), the handicap type, and educational program, in addition to a variety of identification, achievement, and diagnostic information.

Form CC-1 is only submitted once for a given child. When submitted it names the teacher to whom the child is initially assigned. In addition, each teacher is required to submit Form CC-5 (Section X, page 14) in the third month of each school year. This form lists the names of the handicapped children and the type of program, e.g., special class, home instruction.

It is the practice of the Division of Special Education to assemble all of the individual forms for a given Group CC-5 Form using the names of the handicapped students. Then the needed data elements are available for each class of handicapped. However, the availability of the data is limited by the manual retrieval that is necessary.

This process covers all of the exceptional children receiving services under the State program for the public schools. In 1968-69 there were over 900 teachers or classes, which corresponds to the number of CC-5 forms that would have to be handled; there were almost 8,000 pupils enrolled, which indicates the size of the file of CC-1 forms that have to be manually manipulated.

The enrollment data of the mentally retarded children at Colin Anderson Center, the state institution, is available through the Research and Statistics Section of the Department of Mental Health. This group receives a daily population report, form MHS-15 (see Section X, page 18). While the type of Handicap and Educational Program is obvious, the age is not determinable from the form. In addition to the daily population report, an annual summary is developed and published on a July 1 to June 30 basis. This report includes a breakout of the center's clients by age and diagnosis. It shows that almost 80% of the 470 clients were 19 or under on June 30, 1968. The reporting at this time of year is out of phase with the fall reporting of public school enrollment, which is preferable from the viewpoint of the model. Also, the number of clients is deflated at this time, due to vacations.

The information on handicapped children receiving special education in private schools or institutions is not available.

Waiting List

There is no data available at the state level on the number of handicapped children needing but not receiving special education services. The possibility that it exists at lower levels in the state is considered remote by state personnel, except possibly in the two or three more populous counties.

Diagnostic capability is very scarce in West Virginia. That which is available is usually mustered only when funds become available for expanding the special education services and for the cost of the necessary diagnostic work.

So, with the exception of the several populous counties, not only is waiting list data unavailable, it also is not feasible at the present given amount of diagnostic work-ups. In the few counties where it is possible to gather the data, the extent of the list would be very limited at present.

However, the 1969 legislation, which made special education by the counties mandatory in 1974 will have a very favorable effect on the diagnostic rate. It will become more feasible to generate this data as the counties take stock of their special education needs in preparing for the law to become effective. Already the funds for diagnosing and testing have doubled, and it is proposed to double them again for FY 1970.

The waiting list for the Colin Anderson Center is estensive (estimated 227 at time of the interview), and the information is available through the Research and Statistics Section of the Department of Mental Health. However, the monthly report which the Section receives does not include age data.

Children Moving Into and Out of the Identified Handicapped Child Population

The model requires three specific data elements in this category, i.e., the newly diagnosed in need of special education, intrastate transfers, and attrition from the identified population. In each case the age and handicapping condition must be known to project the size of the target group.

Since children are usually diagnosed only when placement is possible, the handicapped children reported by the CC-1 form closely approximates the universe of newly diagnosed. Until this diagnostic practice changes, the data from the CC-1 form will satisfy the model needs.

Presently no information on intrastate transfers and attrition reaches the state level. However, a modified CC-1 form could conceivable suit that need quite well also. This would offer the Division of Special Education the added benefit of being able to purge their file of inactive CC-1 forms,yielding a file of only those children wanting and needing services.

The CC-1 form would require some additional information to suit these additional data needs. Also,it would have to be submitted again at the termination of services.

The movement on the residents of the Colin Anderson Center is reported to the Research and Statistics Section on several forms.

The admission record form MHS-11 (Section X, page 14) has diagnostic information in addition to age and handicap i.e., severity of mental retardation.

The patient movement notice form MHS-14 (Section X, page 14) would provide the age, handicap,and reason for attrition needed by the model.

General Child Population Projections

The child population projections are made by and are available from Dr. Ernest Berty, Department of Education. The projections are an extrapolation of the child survival rates.

Projected Mix of Educational Programs

The Division of Special Education will be able to estimate the future mix of educational programs on the basis of past trends in enrollment in the various programs and the policy and program emphasis envisioned for the future.

Teacher/Pupil Contact Ratios

Teacher/pupil contact ratios have been developed and published in the "Guidelines" for Special Education. These ratios are a function of the types of handicap, the chronological age range of the class,and the use of aides. They are expressed in terms of a minimum and a maximum number of students.

Special Educational Personnel

The number of special education personnel providing instruction and services is available in the early part of each school year through the CC-5 forms. This form,as discussed in the Enrollment Section,is submitted for each teacher

A tally of the personnel (numbering over 900 in 1968-69) is available annually by type of occupation.

V. PROCESSING POTENTIAL

Hardware

Within the Bureau of Administration of the West Virginia Department of Education, there is the Data Processing and Statistic Branch. This group has the most immediately available services for special education. However, their computer, a Burroughs 300 with a 9.6K core, does not have sufficient memory capacity for model usage (32K word storage required).

The Department of Administration and Finance rents an IBM 360/50 but the accessibility of that machine is uncertain at this time. Under consideration at the time of the visit was a central service bureau operation which would make a computer of sufficient capacity accessible to the Division of Special Education. The expectation of the education data processing head is that the situation will be resolved in the near future, with sufficient capacity being made available either directly or as a backup.

Renting outside data processing services of any kind with state money is not feasible under present state practices. However, West Virginia University may be able to provide services with their IBM 7040, if needed. FORTRAN compiler can also be secured from the university if needed. The education data processing group does not have one available at the moment.

Other hardware available in the immediate group includes the following:

- IBM Sorter Model 83
- Digetec Optical Scanner 100
- Three keypunchers
- One verifier.

In addition, paper tape input capability exists.

Personnel

The staff of the educational data processing and statistical center include the chief, two programmers, one programming analyst, a machine operator, two keypunchers and one verifier. This staff is available depending on the priority of the work. At present, and for the foreseeable future, they are heavily committed. This staff, if available, should be able to provide the service necessary to maintain the model and possibly to implement it.

Attitude

The attitude of the Director of the Division of Special Education toward the implementation and utilization of the model was favorable. In fact, the attitude of all those interviewed in West Virginia was positive, and in all cases cooperation received was excellent.

VI. ADDITIONAL FACTORS

A statistical coordinating committee has been formed within the Department of Education to review and authorize any new or additional data collection by this state agency. Their goal is to avoid duplication of effort and minimize the reporting load levied upon the local and county officials. This group comprises the following eight members:

Dr. Pauley, Chairman	Assessment and Evaluation, Statewide
Mr. Eberty	Vocational Education
Mr. Brock	Assistant Superintendent, Federal Programs
Mr. Hembrick	Assistant Superintendent, Administration
Mr. Patterson	Director of Instruction
Mr. Kaufman	Executive Director of State Finance
Miss Walker	Data Processing and Statistical Branch
Dr. Elser	Director of Special Education

The data needs of Special Education can expect prompt approval according to the chairman of the committee and the Director of Special Education.

As mentioned, the West Virginia State Legislature passed legislation in 1969 which requires the 55 counties of the state to provide mandatory special education services for the resident handicapped children by 1974. The annual report of special education for 1968-69 states:

> "...The State must give leadership immediately to identify the areas of exceptionalities; the professional competency required of teachers in each area; criteria for identifying children, etc. Teacher preparation programs must be submitted and approved ..."

Certainly the advantages of the Manpower Requirements Projection Model and its quick implementation in West Virginia become obvious when the output of the model, namely the numbers of the various types of special educators, are considered in light of West Virginia needs. Given the time that is necessary to train these special educators, and the effective date of mandatory legislation, implementation of the necessary data flows and the model itself assumes some urgency.

The funding proposed and planned between the date of the initial legislation in 1969 and its effective date in 1974 is approximately $20 million. In the first year, only $2 million of that could be effectively spent. The impact of the increased funds on the program in total including the diagnostic and testing effort is expected to be considerable. In 50 of the 55 counties, diagnostic work is presently constrained by lack of funds.

VIII. RECOMMENDATIONS

The following recommendations would, upon implementation, provide for the information flow of data elements necessary to manpower projection model utilization and improve the quality and quantity of information available for special education program management.

To achieve basic implementation of this model in the State of West Virginia it is recommended that:

1. The CC-1 form be revised to provide the Division of Special Education with transfer and attrition information. By using form CC-1, where the age and handicap are already established only the reason for withdrawal or transfer need be added. It would require that a copy of the form be sent from the county to the state upon the conclusion of services. Since the county receives an authorized application, when the service begins, this should be no problem. A suggested modification on Form CC-1 is illustrated in Section X, page 16.
2. The waiting list information, including the single year of age and the type of handicap, be developed to the extent made possible by the increased diagnostic funds. A new form stating age and handicap would be necessary once a year, preferably in the fall when enrollment data is collected.
3. The model be utilized according to the following schedule:
    a. In November-December, once the enrollment data is collected via the combination of CC-1 and CC-5 forms and the target groups can be established i.e., the age and handicap groups, this would aid budgeting in the fiscal cycle.
    b. In July-August, once the changes to the enrollment i.e., entrants, transfers and attrition can be measured from the expanded CC-1 forms that would be submitted throughout the school year. This would enable planning and possibly operational decision-making prior to the start of the school year.
4. An outside service bureau, possibly the West Virginia University computer center, be employed (requires Federal funds) for implementation and maintenance of proposed reports until such time as the internal education group secures more memory capacity or the state service bureau is in a position to service and support the effort.
5. The data on the approximately 500 mentally retarded children at the Colin Anderson Center be secured from the Research and Statistics Section for inclusion in the model.

6. Statewide prevalence rates be developed for those exceptionalities not currently compiled in West Virginia. Using prevalence rates is an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data, including the referral and diagnostic data, and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternate methods of validating these rates.

7. The mix of enrollments by educational program or placement, e.g., number enrolled in home instruction versus special classes be projected by the Division of Special Education on the basis of historical enrollment patterns and policy changes or other factors that would affect the state's emphasis on educational programs in the future.

To achieve improvement in the quality and quantity of information developed, the following considerations are offered:

1. The existing and proposed forms will provide the data required by the Manpower Requirements Projection Model. However, the reliability and consistency of the data may be improved if the personnel completing the modified or proposed forms have some additional guidance and reinforcement. This may be accomplished in several ways:
   a. Explain the need and purpose of the data in addition to defining the terminology.
   b. When visiting the local districts and conducting workshops, discuss the forms and their use. Also discuss the model and its benefit to local level of special education as well as to the state level.
   c. Provide feedback to the local districts on results of data collected, including summaries and special studies.

The recommendations and considerations offered, if implemented, should result in successive improvements in the completeness and the accuracy of the data elements over time, with validity being achieved within a few years. Later documents pertaining to this project contain additional information about methods which may be used to estimate some of the data elements until a good information flow is developed and validated.

VIII. RESOURCE REQUIREMENTS—MANPOWER

The Division of Special Education will require assistance in implementing the recommendations made in Section VII. In addition to the cooperation and assistance of the various agencies at the state and local level which will be involved in implementing and maintaining or operating the Manpower Requirements Projection Model, systems analysis capability will be required on both phases.

This talent is required at the time of implementation to aid in modifying and designing keypunchable forms and in programming and designing the system. In addition, the systems analyst(s) should assist in training state and local personnel, writing procedures, and coordinating technical aspects among the various groups exchanging data and results. Systems analyst time will be required for approximately four man-months, special education staff effort for two man-months, programming time for one man-month, and forms design effort for one-half man-month, all over a two-year period, to effect the recommendations necessary for the implementation phase.

During the operation of the system, i.e., once system implementation is achieved, the systems analysis capability will again be required to ensure quality control and to refine and improve the data flow, as well as to update the training of the suppliers to and users of the model. This effort will require approximately one man-month of cumulative effort per year thereafter.

The source of this systems analysis talent for the implementation phase will have to be an addition to the staff or external personnel. For the maintenance phase, the internal education processing group may be capable and willing to provide the systems analysis service. If not, additional staff or personnel from an external source will again be required.

IX. PERSONS INTERVIEWED

The persons interviewed by the Operations Research, Inc. (Leasco) representative, Mr. Joe Kelly, during the November visit to West Virginia were:

- Dr. Roger P. Elser
  Director, Division of Special Education
  Department of Education
- Mr. Thomas O. Iles
  Specialist, Division of Special Education
  Department of Education
- Mr. Ingram
  Specialist, Division of Special Education
  Department of Education
- Miss Nancy Walker
  Chief, Data Processing and Statistical Branch
  Department of Education
- Mrs. Mildred Cox
  Assistant Director
  Division of Medical Care
  Crippled Children Services Program
  Department of Welfare
- Mr. Russell H. McQuain
  Acting Executive Director
  Commission on Mental Retardation
  and Community Services
  Department of Mental Health
- Mrs. Anderson
  Supervisor of Day Care Centers for Mental Retardation
  Department of Mental Health
- Dr. R.D. Kerns
  Director, Community Development
  Department of Mental Health
- Dr. D.P. Rogers
  Director, Outpatient Psychiatric Clinics
  Department of Mental Health
- Mrs. Linda Beale
  Research and Statistics Section
  Department of Mental Health

X. CURRENT REPORT FORMATS

Included in this section are samples of the existing and proposed forms for collecting information in West Virginia that is pertinent to the needs of the Manpower Requirements Projection Model as described in the preceding sections. The existing forms included are:

Form Number	Form Name	Agency
CC-1	Application for Special Education Services	Division of Special Education
CC-5	Schedule for Special Program	Division of Special Education
MHS-15	Daily Population Report	Department of Mental Health
	Movement Action Codes	Department of Mental Health
MHS-11	Admission Record Form	Department of Mental Health
MHS-14	Patient Movement Notice	Department of Mental Health

The proposed form included is:

Modified CC-1	Application for Special Education Services	Division of Special Education

WEST VIRGINIA DEPARTMENT OF EDUCATION
Charleston, West Virginia 25305
DIVISION OF SPECIAL EDUCATION
APPLICATION FOR SPECIAL EDUCATION SERVICES

Code I-SPE-34
Form CC-1
Revised 8/59

☐ Special Class for________________

☐ Home Instruction

____
State Superintendent of Schools

____
Date Approved

Name of Child________________________

Sex____Birthdate________________

Address________________________
Street or R.F.D., City

County________________________

____
Parent or Guardian Occupation Address Telephone

Latest Dates Attended School:________ to________ Grade____________
Mon. Yr. Mon. Yr.

Present School Achievement Level: Reading____________Arithmetic____________

____
Name of Teacher Assigned

____
Monthly Salary Less County Supplement

FOR HOME INSTRUCTION: Sessions per week____________Hours per week____________

Minimum Miles Travel Necessary to Teach this Child per Week____________

Estimated length of time Home Instruction is needed: Weeks________Months________

Date Home Instruction Began________________________

ACADEMIC ACHIEVEMENT TEST SCORES IF AVAILABLE

Name of Test	Date Given	Test Scores

PSYCHOLOGICAL REPORT
(Attach complete report of most recent examination)

Test and Techniques used________________________

Examiner's name and title________________________

Summary of test results________________________

(REPRODUCED FROM STATE FORM)

____
Signature of County Supervisor or Superintendent

NOTE:
Submit Forms CC-1 in duplicate, please.

RPE/mh/jf

Code I-SPE-33

Form CC-5
Revised 1959

WEST VIRGINIA DEPARTMENT OF EDUCATION
Charleston, West Virginia - 25305
DIVISION OF SPECIAL EDUCATION
Schedule for Special Program

☐ Home Instruction
☐ Special Class for ____________________

Location ____________________
(Name of school where class is located)

Minimum number of miles teacher of homebound will travel per week on this schedule ________

County ____________________

Name of Teacher ____________________

State Basic Salary	Basic Experience Increment	County Supplement	Total Monthly Salary

*Names of Pupils

1. ____________________
2. ____________________
3. ____________________
4. ____________________
5. ____________________
6. ____________________
7. ____________________
8. ____________________
9. ____________________
10. ____________________
11. ____________________
12. ____________________
13. ____________________
14. ____________________
15. ____________________

**Class Schedule

Time Class Begins ____________________

Lunch Hour Considered a Teaching Period

Yes ☐ No ☐

Time Class Closes ____________________

Number Hours Class is in Session Daily

____

REMARKS:

(REPRODUCED FROM STATE FORM)

____
County Supervisor or Superintendent Signature

____
Date

* If any child attends regularly on a schedule less than a full day, or less than five days per week, star (*) his name and attach his Form CC-1 or a statement from the child's physician stating the reason for the abbreviated schedule and recommending a special substituted schedule.
Please check (✓) in front of the names of children for whom CC-1's were sent into the state office last year.

** Transfer of Pupils - If a pupil transfers from one special education teacher or service to another, or to regular school, please notify this office and give the particulars.

RPE/mh/lb
9/28/59
Please submit in duplicate

WEST VIRGINIA DEPARTMENT OF MENTAL HEALTH

DAILY POPULATION REPORT FORM MHS-15

______________________________ DATE: ______________________
(NAME OF INSTITUTION)

	MALE	FEMALE	TOTAL
POPULATION BEGINNING OF DAY			
NUMBER RECEIVED DURING DAY 1/			
NUMBER RELEASED DURING DAY 1/			
POPULATION END OF DAY			

PATIENTS RECEIVED DURING DAY:

CASE NO.	PATIENT'S NAME (last name first)	COUNTY	AGE	SEX	TYPE OF ADM. OR RETURN	DATE
					SEE MOVE-MENT ACTION CODE	

PATIENT CHANGE-OF-STATUS

CASE NO.	PATIENT'S NAME (last name first)	DATA BEING CHANGED

PATIENTS RELEASED DURING DAY: 2/

CASE NO.	PATIENT'S NAME (last name first)	COUNTY	AGE	SEX	TYPE OF SEP-ARATION OR LEAVE	DATE
					SEE MOVE-MENT ACTION CODE	

(REPRODUCED FROM STATE FORM)

1/ Exclude patients on temporary visit-pass of seven (7) days or less

2/ This list includes patients on temporary visit-pass of seven (7) days or less

WEST VIRGINIA DEPARTMENT OF MENTAL HEALTH

CODING TABLE NUMBER 42

TYPE MOVEMENT ACTION CODES

APRIL 1, 1968 PAGE 1

TYPE MOVEMENT ACTION CODES

CODE	
A.	PLACED ON LEAVE (See Coding Table 44 for type of leave)
B.	RETURN FROM LEAVE
C.	PLACED ON UNAUTHORIZED LEAVE (See Coding Table 44 for type of leave)
D.	RETURN FROM UNAUTHORIZED LEAVE
E.	DISCHARGED FROM HOSPITAL
F.	DISCHARGED FROM LEAVE
G.	DISCHARGED FROM UNAUTHORIZED LEAVE
H.	DEATH IN HOSPITAL
I.	DEATH ON LEAVE
J.	DEATH ON UNAUTHORIZED LEAVE
K.	TRANSFER OUT TO ANOTHER W.VA. STATE HOSPITAL
L.	TRANSFER OUT TO A W.VA. INSTITUTION FOR MENTALLY RETARDED
M.	TRANSFER OUT WHILE ON LEAVE TO ANOTHER W.VA. STATE HOSPITAL
N.	TRANSFER OUT WHILE ON LEAVE TO A W.VA. INSTITUTION FOR MENTALLY RETARDED
P.	TRANSFER OUT WHILE ON UNAUTHORIZED LEAVE TO ANOTHER W.VA. HOSPITAL
Q.	TRANSFER OUT WHILE ON UNAUTHORIZED LEAVE TO A W.VA. INSTITUTION FOR MENTALLY RETARDED

(REPRODUCED FROM STATE FORM)

1. Type Facility	2. Facility (Hosp.) Number	3. Patient's Case Number

WEST VIRGINIA DEPARTMENT OF MENTAL HEALTH

ADMISSION RECORD FORM MHS-11 (4/68)

Hospital Name:

Patient's Last Name	5. First Name	6. Middle Initial	7. Maiden Name

8. Patient's Address	9. City	State	Zip Code	10. Telephone No.

11. Date of Birth	12. Age at Admission	13. Sex		14. Race		15. Social Security No.	16. County of Residence	Cty Code	17. Date Admission	18. Admission Time	
		M	F	W	NW						M

19. Type Admission	Code	20. Marital Status	21. No. Dep. Children	22. Veteran's Status	23. Source Income	24. Approx. Mo. Income $	25. Certified Bed Code	26. Ward Assignment

27. Provisional Psychiatric Diagnosis	Code	28. Suicidal		29. Regardless of Diagnosis, is Excessive Use of Alcohol a Major Factor in This Patient's Illness?		
		Yes	No		Yes	No

30. Primary Psychiatric Staff Diagnosis	Code	31. Secondary Psychiatric Staff Diagnosis	Code

32. Last Name—Relative/Notify in Emerg.	First Name	Middle Initial	33. Relationship	34. Telephone No.

35. Address	36. City	State	Zip Code	Do Not Use

Patient's Name	Case No.	Hospital

58. Type Contact	59. Birth Place	60. Religion	61. Education	62. Occupation	63. No. W. V. Admissions	64. Total No. Admissions	65. Prior Clinic Contact

66. Phy. Cond. At Admission	67. Major Physical Condition Diagnosis	Code	68. Spec. Hosp. Unit	69. Date Entered Special Hosp. Unit	70. Date Exited Special Hosp. Unit	71. Source of Referral

(REPRODUCED FROM STATE FORM)

Report Prepared By:	[illegible]	Date:

CENTRAL OFFICE

WEST VIRGINIA DEPARTMENT OF MENTAL HEALTH

PATIENT MOVEMENT NOTICE FORM MHS-14 (4/68)

Complete Items 1-10 For All Pat. Movements	1. Type Facility 1	2. Facility (Hosp.) Number	3. Patient's Case Number			
	4. Patient's Last Name	5. First Name	6. Middle Initial	7. Type Movement Action	Code	
	8. Psychiatric Status Code	9. Psychiatric Disability Code	10. Physical Condition Code	11. No. of Leaves (Enter Total Number if Available) _____ Trial Visits _____ Otherwise Absent Family Care Elopements	12. Referral Forms Request	

Placed On Leave	13. Type Leave	14. Date Placed On Leave	15. No. Days Leave App.	Transfer Out	16. Transferred To	17. Reason Trans.	18. Date Transfer	19. Net Stay at Transfer Days | Yrs.
Return From Leave	20. Reason Leave Terminated	21. Physical Cond. Return Leave	22. Diagnosis Physical Condition Return Leave	Code	23. Date Return Leave	24. Net Stay This Leave Days | Yrs.		
Discharged	25. Reason Discharged	26. Date of Discharge	27. Disc. Physical Diagnosis	Code	28. Disc. Psychiatric Diag.	Code	29. Net Stay At Discharge Days | Yrs.	

Complete Items 30-44 For Death	30. Code Primary Cause of Death	31. Code Secondary Cause of Death	32. Date of Death	33. Age at Death	34. On Set 48 Hrs. | Over 48 Hrs.	35. Autopsy Performed Yes | No	36. Unusual Circumstances Yes | No	37. Net Stay At Death Days | Yrs.
	38. Physician's Signature				39. Superintendent's Signature			
	40. Cause of Death Due To a. Primary				b. Secondary			
	41. Other Significant Conditions				42. Death Due to Injury			
	43. Autopsy Findings				44. Unusual Circumstances Explanation			

Date of Admission	County	Sex M	Sex F

(REPRODUCED FROM STATE FORM)

Completed For Placed On Leave, Di...	45. Last Name—Person to Whom Patient Released	46. First Name	47. Middle Initial	48. Relationship	49. Telephone No.
	50. Address	51. City	State	Zip Code	Do Not Use
	Report Prepared By		Title		Date

CENTRAL OFFICE

CODE 1-SPE-34
FORM CC-1
REVISED /

WEST VIRGINIA DEPARTMENT OF EDUCATION
Charleston, West Virginia 25305
DIVISION OF SPECIAL EDUCATION
APPLICATION FOR SPECIAL EDUCATION SERVICES

PROGRAM

☐ Special class for ______________________

☐ Home instruction

IDENTITY

Name of child ______________________ Sex ________ Birth date ____________

Address ____
Street or R.F.D., City County

Parent or Guardian ____

Address ____
Street or R.F.D., City County

Occupation ______________________ Telephone ____________

PLACEMENT

Recommended sessions per week ______________________ Hours per week ____________

Minimum miles travel necessary to teach this child per week ______________________

Estimated length of time instruction is needed ______________________

Date instruction: Began ____________ Terminated ____________

Reason for termination ____

ACHIEVEMENT

Name of teacher assigned ______________________ Salary ____________

Latest dates attended school: ______ / ______ to ______ / ______ Grade ____________
Month Year Month Year

Present school achievement level: Reading ____________ Arithmetic ____________

ACADEMIC ACHIEVEMENT TEST SCORES IF AVAILABLE

Name of test ______________________ Date given ____________ Test scores ____________

PSYCHOLOGICAL

PSYCHOLOGICAL REPORT

(Attach complete report of most recent examination)

Test and techniques used ______________________

Examiner's name and title ______________________

Summary of test results ______________________

(REPRODUCED FROM STATE FORM)

APPROVALS

Note: a . Submit forms CC-1 in duplicate for application

____________ Date ______________________ Signature of County Supervisor or Superintendent

____________ Date ______________________ State Superintendent of Schools

b . Submit form CC-1 for termination of services

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS
WEST VIRGINIA

DATA ELEMENTS			PUBLIC SCHOOLS			STATE INSTITUTIONS			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Available			Available	Request basis	Research and Statistics Section DMH	Not available
		HANDICAPPING CONDITION	Available			Available			
		EDUCATION PROGRAM	Available			Available			
	ON WAITING LIST	AGE	Available at 2 or 3 counties	New form	County school superintendent office	Available	Request basis	Research and Statistics Section DMH	
		HANDICAPPING CONDITION	Not available			Available			
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not available			Not applicable			
		HANDICAPPING CONDITION	Not available			Not applicable			
	INTRA-STATE TRANSFERS	AGE	Not available	Resubmit modified CC-1 or develop a new form	Teachers	Available	Request basis	Research and Statistics Section DMH	
		HANDICAPPING CONDITION	Not available			Available			
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Not available			Available			
		HANDICAPPING CONDITION	Not available			Available			
		REASON	Not available			Available			
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Extrapolations of child survival rates available from Dr. Ernest Berty						
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Available						
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Available						
		EDUCATION PROGRAM	Available						
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Available						

WISCONSIN STATE ANALYSIS REPORT

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III. RESPONSIBILITIES FOR SPECIAL EDUCATION D49-2

IV. DATA ELEMENT EVALUATION D49-4

V. PROCESSING POTENTIAL D49-7

VI. ADDITIONAL FACTORS D49-7

VII. RECOMMENDATIONS D49-8

VIII. RESOURCE REQUIREMENTS—MANPOWER D49-9

IX. PERSONS INTERVIEWED D49-9

X. CURRENT REPORT FORMATS D49-10

The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

WISCONSIN STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education of the Handicapped (BEH), Operations Research, Inc. (ORI), has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and BEH and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of this Manpower Requirement Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential of the state agencies responsible for the education of handicapped children to utilize this model. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Wisconsin and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

The Wisconsin Division of Handicapped Children's Services receives comprehensive data on those pupils enrolled in public school special education programs. Many of the data elements regarding the public school special education programs are available from the annual superintendents' enrollment reports. Under a Title VI grant, the Division of Handicapped Children's Services is developing a computerized record of these reports and designing advanced techniques of reporting pupil information to the state. These activities are being accomplished with the assistance of the University of Wisconsin Computer Division as well as through the Division for Administrative Services of the Department of Public Instruction.

As in many other states, the responsibility for institutionalized children that are mentally retarded and/or emotionally disturbed rests with the Division of Mental Hygiene of the Department of Health and Social Services. This Division is also responsible for the Day Care Centers serving the mentally retarded. Through its Bureau of Research, some of the data elements received by the Division of Mental Hygiene are electronically processed. The Bureau of Research appeared very willing to coordinate its efforts with the Division of Handicapped Children in order to enable the Manpower Requirements Projection Model to serve those responsible for handicapped children's educational programs.

It should be noted that some private school special education data are reported to the Division of Mental Hygiene and are available for the model for the State of Wisconsin.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The responsibility for the handicapped children in Wisconsin is illustrated in the organization chart shown in Figure 1. Only those organizations having educational or informational service functions for handicapped children have been shown. The Division of Handicapped Children's Services has the legal responsibility for the following handicap groups:

a. Visually impaired
   1. Blind
   2. Defective vision
b. Hearing impaired
   1. Deaf
   2. Defective hearing
c. Mentally retarded
   1. Educable
   2. Trainable

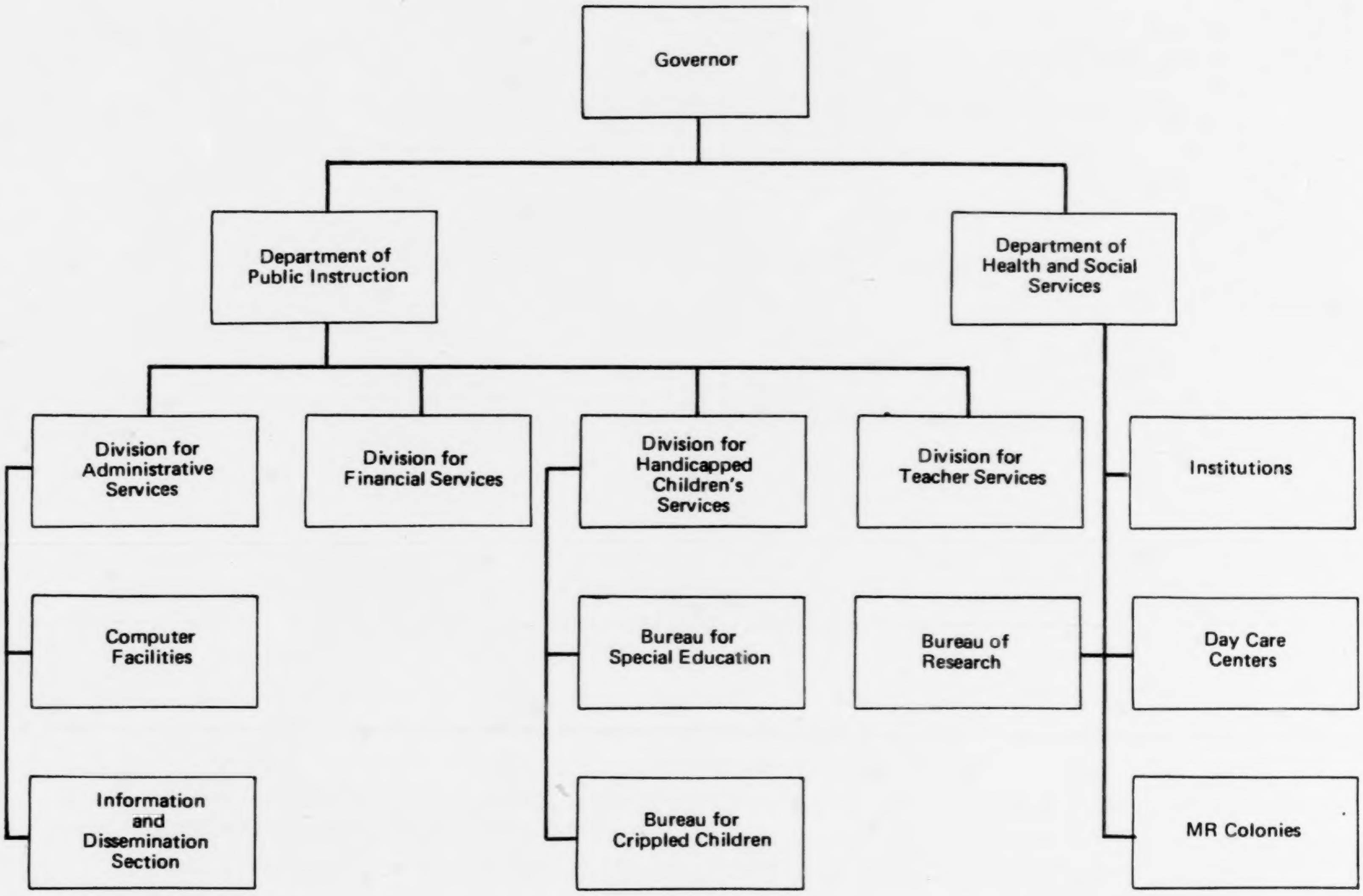
Governor
Department of Public Instruction
Department of Health and Social Services
Division for Administrative Services
Division for Financial Services
Division for Handicapped Children's Services
Division for Teacher Services
Institutions
Computer Facilities
Bureau for Special Education
Bureau of Research
Day Care Centers
Information and Dissemination Section
Bureau for Crippled Children
MR Colonies

FIGURE 1. ORGANIZATION OF SPECIAL EDUCATION IN WISCONSIN

- d. Defective speech
- e. Special learning/language disability
- f. Orthopedic handicap
- g. Multiple handicap.

The handicap groups for which the Division of Mental Hygiene are legally responsible are:

- a. Mental retardation
  1. Educable (institutional)
  2. Trainable (institutional)
  3. Severe
  4. Profound
- b. Emotionally disturbed (institutional).

IV. DATA ELEMENT EVALUATION

Some specific data elements are necessary to the use of the projection model. The information which these data elements provide may also be very useful to the Division for Handicapped Children's Services for other operational analyses. These data elements and their potential sources are discussed in the following paragraphs.

Number of Children Identified as Needing Special Education

Enrollment. At the present time, children receiving special education in the public schools are identified on the school district supervisors' annual enrollment forms for handicapped children according to their ages, types of special education programs, and specific handicapping conditions. (See Section X, page D49-17.)

The Wisconsin children's colonies for the mentally retarded and day care centers for the mentally retarded provide pupil information to the Division of Mental Hygiene, which is keypunched and automatically processed by its Bureau of Research. The data elements concerning pupils in the children's colonies are capable of being derived from form BR-76, "Colony Patient Census." (See Section X, pages D49-13-14.) For the children in the day care centers for the mentally retarded, single year of age data are present on form BR41r, "Persons Actively Receiving Day Care Services." (See Section X, page D49-12.)

Data from Wisconsin state or county mental hospitals (and the Wisconsin Children's Treatment Center) do not identify how many mentally retarded and/or emotionally disturbed children are receiving special education training. The number of children (45) is not large, however, and the data gap not significant.

Several private agencies provide special education services to children in Wisconsin, and some of these agencies report pupil information to the Division of Mental Hygiene. The data elements from such facilities are derived from reporting forms MH-149f, "Inventory of Mental Retardation Facilities," and suffers from a minor limitation, i.e., that single year of age data are not available, with only an age range being provided for each child (e.g., 0-5, 6-12, 13-20). (See Section X, page D49-16.)

Waiting List

The information should be contained on the school district superintendents' "Annual Report Regarding Identification of Handicapped Children as Required Under the Provisions of Section 115.78 of Wisconsin State Statutes." In fact, these data are only partially complete (i.e., only available for some public schools) since the reporting task of 115.78 is overwhelming to the school district superintendents. The waiting lists for the institutions, day care centers, Wisconsin Treatment Center, and private schools, therefore, are not currently complete at the state level through the annual report mechanism. (See Section X, page D49-18.)

Number of Children Moving Into and Out of the Identified Handicapped Child Population

The number of newly diagnosed children, by age and handicapping condition is available from the Annual Identification Reports of the school superintendents. Again, these data are only partially complete since the reporting task of 115.78 is overwhelming to the school district administrators.

In addition to children newly diagnosed as handicapped each year by diagnostic clinics or schools, it is possible that school programs will acquire children who have been diagnosed or identified as handicapped previously in other school districts or other parts of the state. Rather than reporting these children again as newly diagnosed (which could distort the incidence picture in the state), these intra-state transfers should be reported separately. Because no code exists for such transfers into special education programs, one would have to be developed by the Special Education Division. This would enable school district superintendents to indicate which children reporting that year had transferred into their program from another special education program in the state. These intra-state transfers could then be tabulated fairly simply from the Annual Identification Report.

State residential schools and community centers could also be asked to indicate intra-state transfers into their programs, as part of the enrollment data that the Bureau of Research of the Department of Health and Social Services would be requesting each year for inclusion in the model.

Attrition data can be supplied from the Annual Enrollment reports of the school district superintendents. Complete information on attritions from private school enrollments would be directly available through the Department of Health and Social Services form MH-149f with minor modification of this form.

Unidentified Handicapped Child Population

An estimate of the number of children, by handicapping condition and age, who will be newly diagnosed in the near future could only be made for mentally retarded children (by using the information supplied by the superintendents' reports of the number of retarded children on the public school referral list). Estimates of the percent of referrals expected to be diagnosed as needing special education cannot be made at this time by the Division of Handicapped Children's Services for the other handicapped groups.

It has been possible to overcome this difficult problem on a temporary basis, however, by utilizing several limited studies on the unidentified handicapped child population that have been conducted for several school districts in Wisconsin. State-wide extrapolations have been modified, then, to provide more meaningful data for the State of Wisconsin.

General Population Projections

The projected number of children in the general population, by single year of age, for each year for which special education manpower projections are to be made, presents little problem in data collection since Title VI project applications require this information, at least for the coming fiscal year.

Projections are also available for future years, and applying established incidence rates to the number of new entrants should present no difficulty.

Data Used to Simulate Special Education

Trends in the proportionate number of children served in each educational program, by target group, are available for public school special education programs, day care center programs, and special education programs in institutions.

The personnel/pupil contact ratios for the types of personnel in direct contact with the children in each target group in special education programs is another data item that would be readily available from the Division of Special Education and can be applied to all types of programs in public schools, institutions, and day care centers.

Employment by Personnel Types

On the "Annual Plan of Service for Special Education," the Division of Handicapped Children's Services has a record of all special education personnel in the public schools of Wisconsin. This information is also available from the Division of Teacher Training on its "Annual Certification Reports" (on computer). The Department of Mental Hygiene's Bureau of Research has special education personnel data for the day care centers, Wisconsin Treatment Center, and the institutions.

V. PROCESSING POTENTIAL

Hardware

There is adequate hardware available to the Division of Handicapped Children's Services to process the data and accommodate the projection model. The same is also true for the Department of Health and Social Services, through its Bureau of Research, which presently keypunches and processes data on the Wisconsin children's colonies and day care centers for the mentally retarded.

The Division of Handicapped Children's Services has three potential suppliers of EDP equipment: the Division of Administration of the Department of Public Instruction, the University of Wisconsin's Computer Center, and the State Department of Public Administration. At the present time, the Division of Handicapped Children's Services is developing advanced techniques of reporting pupil data in conjunction with the University of Wisconsin.

Personnel

The programming and keypunching services of the Department of Public Instruction, the Department of Administration, and the University of Wisconsin are potential sources of personnel for implementing the projection model. The University of Wisconsin has been very cooperative with the Division of Handicapped Children's Services in providing software support in the past, and it appears that the University would be the likely agency for assisting in the development of the projection model. It seems that such an arrangement would provide the Division of Handicapped Children's Services with adequate support.

Acceptance of Model Concept

The Division of Handicapped Children's Services and the Bureau of Research of the Department of Health and Social Services expressed a high level of interest and cooperation in developing and implementing the proposed model. Both agencies appear to have qualified staff analysts to handle the project, although the primary responsibility for the project would lie with the Division of Handicapped Children's Services.

VI. ADDITIONAL FACTORS

Under a Title VI grant, the Division of Handicapped Children's Services has been developing a computerized record of all reports and plans of data reaching the state. This project has also been involved in experimenting with advanced techniques of reporting pupil information to the state; e.g., using IBM cards that can easily be punched at the local level and directly entered into the data bank at the state level. These activities have been accomplished with the assistance of the University of Wisconsin's Computer Division, as well as through the Division for Administrative Services of the Department of Public Instruction.

The project team funded under this Title VI project was responsible for supplying all of the data on special education in the public schools during the current projection model effort. It is important to note that this Title VI grant expires during the first half of calendar year 1970. The implication for implementing the proposed model is clear: funding must come from another source besides the current Title VI grant.

VII. RECOMMENDATIONS

As a result of the interviews with those individuals responsible for special education programs in Wisconsin, several recommendations concerning model development and implementation can be made. First, the two state agencies accountable for special education programs must close the data gaps between current data availability and the amount of data necessary to implement the projection model. In order to close the data gap, the Department of Health and Social Services must obtain the number of children receiving special education in Wisconsin state or county mental hospitals and the Wisconsin Children's Treatment Center by modifying forms:

a. BR-10E ("Report of Patient Admitted to Wisconsin Children's Treatment Center," see Section X, page D49-18)

b. MH-504 ("Report of Patient Admitted to a Wisconsin State or County Mental Hospital," see Section X, page D49-19).

These same forms must also be modified to include the number of children, by age and handicapping condition, that enter the current program from another special education program. Furthermore, these reports must show the number of children who attrite from the institutional special education program.

The Department of Health and Social Services would also have to modify forms BR-76 ("Colony Patient Census") and BR-41r ("Persons Actively Receiving Day Care Services") in order to obtain intra-state transfer data and attrition data. Again, these data refer to transfers from special education programs and attritions from special education programs, rather than transfers between children's colonies or day care centers.

In order to improve the data on the unserved identified population, on the newly diagnosed, and on the intra-state transfers, the Division of Handicapped Children's Services must inform the school district superintendents of the importance of complete data to the development of the special education programs. Until complete data on the handicapped children are available through the "Annual Report Regarding Identification of Handicapped Children as Required under the Provisions of Section 115.78 of Wisconsin State Statutes," the Division of Handicapped Children's Services may choose to use estimates of the total handicapped child population to derive an upper limit on the manpower requirements for special education in Wisconsin.

The second general procedure necessary for implementing the proposed projection model concerns the actual processing of the data. Because of the availability of adequate hardware to the Division of Handicapped Children's

Services and the Division's overall responsibility for special education, it is recommended that the Bureau of Research of the Department of Health and Social Services supply its data, perhaps on IBM cards, to the Division of Handicapped Children's Services for inclusion in the projection model.

VIII. RESOURCE REQUIREMENTS—MANPOWER

Within the Division of Handicapped Children's Services, adequate statistical and information systems analysis capability exists. As mentioned earlier in this report, however, the study group responsible for this analysis is funded under a Title VI grant that will expire during the first half of 1970. In the event that this study group does not function after the end of the current grant, additional capability of this type would have to be acquired in order to implement the model.

It is estimated that approximately 2 1/2 man-months of special education staff effort, 2 1/2 man-months of systems analysis time, and 1 man-month for programming would be necessary over a 1-2 year period to develop the procedures for implementing the model, including coordinating information collecting activities with other state and local agencies during the first year. In subsequent years, this effort might be reduced to 1 1/2 man-months of cumulative effort annually to maintain the system.

IX. PERSONS INTERVIEWED

The persons interviewed by the ORI (Leasco) representative, Mr. Jeffrey Koshel, during the week of 13 November 1969 were:

Mr. John Melcher	Director of Handicapped Children's Services Division
Mr. Victor Contrucci	Program Administrator, Mental Retardation Section
Mr. Robert Sterrett	Assistant Program Administrator, Mental Retardation Section
Dr. Kary Hyre	Bureau of Research, Division of Mental Hygiene, Department of Health and Social Services
Mr. James McNall	Research Analyst, Bureau of Research, Division of Mental Hygiene, Department of Health and Social Services

Mrs. Majorie Hedrick	Bureau of Planning-Evaluating-Research, Division of Mental Hygiene, Department of Health and Social Services
Mr. Irwin Probstein	Mental Retardation Section, Division of Mental Hygiene, Department of Health and Social Services

X. CURRENT REPORT FORMATS

Form PI-BHC-SE 80-87, Annual Enrollment Report of (Handicapped) Children

Form BR-76, Colony Patient Census

Form BR-41r, Persons Actively Receiving Day Care Services

Form MH-149f, Inventory of Mental Retardation Facilities

Annual Report Regarding Identification of Handicapped Children as Required Under the Provision of Section 115.78 of Wisconsin State Statutes

Form BR-10E, Report of Patient Admitted to Wisconsin Childrens' Treatment Center

Form MH-504, Report of Patient Admitted to Wisconsin State or County Mental Hospital

6500-344-03

DEPARTMENT OF PUBLIC INSTRUCTION
BUREAU FOR HANDICAPPED CHILDREN
ANNUAL REPORT-HANPED CHILDREN-SECTION 115.78
SCHOOL YEAR 1968-1969

MAKE ALL CHANGES IMMEDIATELY ABOVE EACH LINE OF PRINTING. ADD NEW CHILDREN TO BOTTOM OF REPORT OR TO BLANK SHEETS PROVIDED. REPORT DUE DECEMBER 20, 1968

CO DIST	DISTRICT NAME
03 4557	PRAIRIE FARM

			NAME OF CHILD				KNOWN OR SUSPECTED DISABILITIES											
RES CO	CESA	BIRTHDAY MO DA YR	LAST NAME	FIRST NAME	I N	STATUS	EDCBLE MENTLY RETD	TRNBLE MENTLY RETD	EMOTLY DISTBD	BLIND	DEFECT VISION	DEAF	HARD OF HEARING	ORTHO-PEDIC	DEFECT SPEECH	SPEC LANG DISB	SPEC LEARN DISB	OTHER SPY & CODE

(REPRODUCED FROM STATE FORM)

D49-11

State of Wisconsin
Department of Health and Social Services
Bureau of Research
BR-41r (Rev. 10-64)

PERSON ACTIVELY RECEIVING DAY CARE SERVICES

(1-18) LAST NAME FIRST (print clearly)

(19) Sex (check one)
1 ☐ Male
2 ☐ Female

(20-25) Birth date (month, day, year)

(26-31) Date currently active

(check one)
☐ Previously active with center
☐ Not previously active with center

(32-33) Age on date currently active

(34) Source of referral (check one)
1 ☐ Parent or relative
2 ☐ Physician
3 ☐ School
4 ☐ Social agency (please specify)____________________
5 ☐ Friend or neighbor
6 ☐ Other (please specify)____________________

(35-36) Physical limitation (check one or more)
01 ☐ Sight
02 ☐ Hearing
04 ☐ Speech
08 ☐ Spasticity
16 ☐ Ambulation
32 ☐ Amputation
64 ☐ Other (please specify)____________________
00 ☐ No physical limitation

Comments relating to physical limitations:

(37-38) Handicap (check one or more)
01 ☐ Mentally ill or emotionally disturbed
02 ☐ Mentally retarded
04 ☐ Epileptic
08 ☐ Other (please specify)____________________
00 ☐ None

Clinical description of handicap as reported by physician:

(REPRODUCED FROM STATE FORM)

(39-41) Attendance (enter numbers to describe attendance days)
_____ Number of full-days per week
_____ Number of half-days per week
Non-regular attendance (please specify)____________________
____

(over)

BR-76: Colony Patient Census (page 1) (Card 1 & 2)

1-18. PATIENT'S LAST NAME, FIRST NAME:

19-24. PATIENT NUMBER: (6 digits)

25-27. LIVING AREA NUMBER: (3 digits)

28. INSTITUTION CODE: (circle one)
3 Northern Colony and Annex
4 Southern Colony
5 Central Colony

29. SEX: (circle one)
1 Male
2 Female

30-35. BIRTH DATE: (month, day, year) (6 digits)

36. INTELLIGENCE LEVEL: (circle one)
0 No retardation
1 Borderline
2 Mild
3 Moderate
4 Severe
5 Profound

(REPRODUCED FROM STATE FORM)

State of Wisconsin
State Department of Public Welfare
Bureau of Research
BR-76 (Revised 11-66)

BR-76: Colony Patient Census (page 2) (Card 1)

PATIENT'S LAST NAME, FIRST NAME:

137-139. WEIGHT: (to nearest pound)(3 digits)

140-141. HEIGHT: (to nearest inch)(2 digits)

142. SPEECH:
1 Talks meaningfully in long and complex sentences
2 Talks meaningfully in phrases and simple sentences
3 Uses a few words for basic needs
4 Babbles or mute but makes needs known
5 No speech, cannot make needs known

143. VISION:
1 Apparent normal vision
2 Vision impaired but corrected
3 Vision impaired, NOT corrected
4 No apparent vision

144. HEARING:
1 Apparent normal hearing
2 Hearing impaired but corrected
3 Hearing impaired, NOT corrected
4 No apparent hearing

145. AMBULATION:
1 Moves by self(walks with no difficulty)
2 Moves with some difficulty
3 Moves with assistance
4 Must be moved by others

146. RECEIVED ESCORT OFF-WARD
1 No
2 Yes

147. FOLLOWS DIRECTIONS:
1 Follows new or routine directions well
2 Follows only simple, routine, gestural or definite change-in-tone directions
3 Follows NO direction

148. AWARENESS OF PHYSICAL HAZARDS/DANGER:
1 Generally aware, protects self
2 Occasionally aware, needs frequent assistance
3 Seldom aware, requires protection by others

149. SOCIALIZES WITH PATIENTS OR STAFF:
1 With 3 or more persons
2 With 1 or 2 persons only
3 With no patients or staff

150. COOPERATIVE BEHAVIOR:
1 Generally cooperative
2 Occasionally cooperative
3 Passive or neutral
4 Seldom cooperative

151. APPROPRIATE ACTIVITY:
1 Generally appropriate
2 Occasionally appropriate
3 Seldom appropriate

152. CHRONIC ILLNESS OR HEALTH CONDITION:
1 No
2 Yes

	PROGRAM PARTICIPATION				PROGRAM OR THERAPY (Items 153--176)
	ON WARD		OFF WARD		
	No 1	Yes 2	No 1	Yes 2	
	(circle one)		(circle one)		
153-154.	1	2	1	2	Recreation (passive)
155-156.	1	2	1	2	Recreation (active)
157-158	1	2	1	2	Religious program
159-160.	1	2	1	2	Academic school program
161-162.	1	2	1	2	Vocational training
163-164.	1	2	1	2	Sheltered work program
165-166.	1	2	1	2	Occupational therapy
167-168.	1	2	1	2	Speech or language therapy
169-170.	1	2	1	2	Physical therapy
171-172.	1	2	1	2	Social-emotional training
173-174.	1	2	1	2	Experimental research
175-176.	1	2	1	2	Demonstration project

177-178. CODE NUMBER OF PERSON COMPLETING ITEMS 137--176 (page 2)

(REPRODUCED FROM STATE FORM)

State of Wisconsin
DEPARTMENT OF HEALTH AND SOCIAL SERVICES
Division of Mental Hygiene
Form MH-149f
Card Code 34

149 f

INVENTORY OF MENTAL RETARDATION FACILITIES

Name of Facility Code (2-7)

Type of Facility Code (8-9)

NAME OF FACILITY	LOCATION OF FACILITY ZIP CODE	COUNTY OF LOCATION	CONGRESSIONAL DISTRICT NO.
NAME OF ADMINISTRATOR	TITLE OF ADMINISTRATOR	TELEPHONE NUMBER OF FACILITY	

1. HOW MANY PERSONS WERE SERVED IN YOUR FACILITY? Count each person only once.
(10) FOR YEAR ENDING:
1 ☐ 6/30/68
2 ☐ 12/31/68
3 ☐ Other (Specify) ____________

D49-15

2.a. What is your TYPE OF FACILITY? See INSTRUCTIONS, Check appropriate box(es)
Residential Facility . . . . . . (11) 0 ☐
Nursing Home . . . . 1 ☐
Group Residence . . . . 2 ☐

b. Do you also have a Diagnostic and Evaluation Clinic? (12) 1 Yes ☐ 2 No ☐

c. Do you also have a Day Facility? (13) 1 Yes ☐ 2 No ☐

AGE GROUP IN YEARS	NUMBER OF PERSONS SERVED FOR YEAR BY DIAGNOSIS									TOTAL NUMBER OF PERSONS SERVED BY AGE GROUP
		MENTALLY RETARDED BY LEVEL OF RETARDATION								
	Mentally Ill or Emo. Disturbed	Borderline 68-83 IQ	Mild 50-67 IQ	Moderate 35-49 IQ	Severe 20-34 IQ	Profound Below 20 IQ	Information Not Available	Alcoholic	Normal Unknown Other	
0-5 inclusive	(14-16)	(17-19)	(20-22)	(23-25)	(26-28)	(29-31)	(32-34)	(35-37)	(38-40)	(41-44)
6-12	(45-47)	(48-50)	(51-53)	(54-56)	(57-59)	(60-62)	(63-65)	(66-68)	(69-71)	(72-75)
13-20	(33:10-12)	(13-15)	(16-18)	(19-21)	(22-24)	(25-27)	(28-30)	(31-33)	(34-36)	(37-40)
21-44	(41-43)	(44-46)	(47-49)	(50-52)	(53-55)	(56-58)	(59-61)	(62-64)	(65-67)	(68-71)
45-64	(72-74)	(75-77)	(36:10-12)	(13-15)	(16-18)	(19-21)	(22-[illegible]	(25-27)	(28-30)	(31-34)
65+	(35-37)	(38-40)	(41-43)	(44-46)	(47-49)	(50-52)	[illegible]	(56-58)	(59-61)	(62-65)
Unknown	(66-68)	(69-71)	(72-74)	(75-77)	(37:10-12)	[illegible]	(16-18)	(19-21)	(22-24)	(25-28)
TOTAL SERVED BY DIAGNOSIS	(29-32)	(33-36)	(37-40)	(41-44)	[illegible]	[illegible]9-52)	(53-55)	(57-60)	(61-64)	(65-69)

(REPRODUCED FROM STATE FORM)

Childrens' Colonies, Day Care Centers (MR), Day Care Centers (VR) + Private Nursing Homes + Private Residential Care

PLEASE TURN TO PAGE 2

Wisconsin Department of Public Instruction
Division for Handicapped Children
Enrollment Report of RESIDENT and NON - RESIDENT Children
SPECIAL EDUCATION PROGRAMS
Check Type of Program -
____ Emotionally Disturbed PI-BHC-SE-82
____ Special Learning Disabilities PI-BHC-SE-83

INSTRUCTIONS: File three copies with the State Superintendent by October 1. Retain one copy. All children must have prior approval on Form PI-BHC-SE-91

UNIT PROGRAM DATA

A. LEVEL OF PROGRAM UNIT
- ___L-1 Nursery - Kindergarten
- ___L-2 Elementary - Wide Range
- ___L-3 Primary
- ___L-4 Intermediate
- ___L-5 Secondary - Wide Range
- ___L-6 Junior High
- ___L-7 Senior High
- ___L-8 Senior High Work Study
- ___L-9 Other - Specify________

B. TYPE OF PROGRAM UNIT
- ___T-1 Self-Contained - Complete
- ___T-2 Self-Contained - Modified
- ___T-3 Self-Contained - Integrated
- ___T-4 Crisis Room
- ___T-5 Resource Room
- ___T-6 Itinerant Program
- ___T-7 Diagnosis & Eval.
- ___T-8 Other - Specify ________

Official Name of School District
County, CESA operating program

Name________
County________ CESA____
School________
School Address________
Phone________
Teacher________
School Year________
No. Days in School Year________
Teacher Aide________
Principal-Supervisor________

Give FULL LEGAL NAME of Child (Alphabetize - Last Name First CHECK if Non-Res STAR if Boarded	Date of Birth	Sex M - F	I.Q. INFORMATION						EDUCATION DATA			RESIDENCE			TRANSPORTATION		COMPLETE AT END OF YEAR	
			Full Scale	Verbal	Performance	Name of Test	Date of Test	Name of School Psychologist	Instructional Level	Arithmetic	Reading	County	CESA	School District	Is Child Transp. Yes or No	Name of School Agency Claiming Transp. Aid	No. Day's Membership	No. Day's Attended
Child's Name: Parent's Name:																		
Child's Name: Parent's Name:																		
Child's Name: Parent's Name:																		
Child's Name: Parent's Name:																		
Child's Name: Parent's Name:																		
Child's Name: Parent's Name:																		

(REPRODUCED FROM STATE FORM)

UNIT SUMMARY: OCTOBER
Range of I.Q. ____ to ____
Range of C.A. ____ to ____
Instructional Level ____ to ____

JUNE
Range of I.Q. ____ to ____
Range of C.A. ____ to ____
Instructional Level ____ to ____

STATE OF WISCONSIN
STATE DEPARTMENT OF PUBLIC WELFARE
BUREAU OF RESEARCH
BR-10E (7-64)

Mentally Ill + Emotionally Disturbed (total 16)

REPORT OF PATIENT ADMITTED TO WISCONSIN CHILDREN'S TREATMENT CENTER

Institution 09 (1-2) Admission date ________ (month day year) (3-8) Patient number ________ (9-14)

Name ________ (15-32) Sex ____ (33) Admission code ________ (34-35)

Prior stay in Wisconsin state or county mental institution (36)

0 No record of prior stay
Prior stay in:
2 State hospital or HMD only
8 Wisconsin Diagnostic Center only
9 Both state hospital (or HMD) and Wisconsin Diagnostic Center

Prior stay in other public mental institution (37)

0 No record of prior stay
Prior stay in:
1 Public institution in other state

Prior stay in other psychiatric facilities (38)

0 No record of prior stay
Prior stay in:
1 Private mental hospital
2 Psychiatric care in general hospital
3 Both types

Month of birth (39)

1 January - June
2 July - December

________ Year of b[illegible]0-41)

________ Age or [illegible]sion (42-43)

(REPRODUCED FROM STATE FORM)

Race (44)

1 White
2 Negro
3 American [illegible]
[illegible] Mexican Indian
5 Other

(Skip Co[illegible]-47)

County [illegible]residence (not settlement) (48-49)

________ (code)

Admission diagnosis (Standard Nomenclature) (50-53)

________ (code) D49-17

Referral diagnosis (Standard Nomenclature) (54-57)

________ (code)

Admission diagnosis (Center's Nomenclature) (58-60)

________ (code)

Prior stay in non-psychiatric institution (circle all applicable) (61-62)

00 No record of prior stay
Prior stay in:
01 Wisconsin Child Center
02 Juvenile training school
04 Private child welfare institution
08 Milwaukee County Children's Home
99 Not reported

Prior non-hospital or non-institutional contacts (circle all applicable) (63-64)

00 No record of prior contact
Prior contact:
01 Day care center (psychiatric orientation)
02 Mental health clinic, psychiatrist, or psychologist
04 Casework agency
08 School (psychologist or case worker)
99 Not reported

Type of outpatient service previously received (CTC) (65)

0 No record
1 Intake (application) service only
Diagnostic service without treatment:
2 Incomplete diagnostic study for other agency
3 Incomplete diagnostic study for CTC
4 Complete diagnostic study for other agency
5 Complete diagnostic study for CTC
Treatment service:
6 Outpatient treatment
7 Day care

STATE OF WISCONSIN
DEPARTMENT OF HEALTH AND SOCIAL SERVICES
BUREAU OF RESEARCH
FORM MH-504 (7-1-69)

Institution No.__________ (1-2)

REPORT OF PATIENT ADMITTED TO A WISCONSIN STATE OR COUNTY MENTAL HOSPITAL

Patient No.________ (9-14) Name__________________ (15-32) (last name first) Adm. date________ (yr. mo. day) (3-8) Adm. code______ (34-35)

Prior stay in Wisconsin state or county mental institution (36)

0 No record of prior stay
Prior stay in:
1 County hospital only
2 State hospital only
3 Colony only
4 Both county and state hospital
5 Both county hospital and colony
6 Both state hospital and colony
7 All three types

Prior stay in other public mental institution (37)

0 No record of prior stay
Prior stay in:
1 Public institution in other state
2 VA hospital
3 Both types

Prior stay in other psychiatric facilities (38)

0 No record of prior stay
Prior stay in:
1 Private mental hospital
2 Psychiatric care in general hospital
3 Outpatient care
4 1 and 2
5 1 and 3
6 2 and 3
7 1, 2, and 3

(REPRODUCED FROM STATE FORM)

Penal institution experience (39)

0 None recorded
1 Wisconsin Prison, Reformatory, or Home for Women
2 Other prisons or reformatories
3 Jail sentence only

Juvenile institution experience (40)

0 None recorded
1 Wisconsin School for Boys or Girls
2 Wisconsin Child Center or Milwaukee Children's Home
3 Other children's institutions

Date of Birth____________ (41-46)
(year, mo., day)

D49-18

Age on admission____________ (47-48)

Heritage (49)

1 White
2 Negro
3 American Indian
4 Spanish-speaking
5 Other

Veteran (50)

1 Yes
2 No

Marital status (51)

1 Single, never married
2 Married, not previously divorced
3 Married, previously divorced
4 Divorced
5 Separated
6 Widowed

Living arrangement (52)

0 Alone
1 With spouse
2 With parent(s)
3 With son or daughter
4 With other relative
5 With non-relative
6 In Halfway House
7 On family care
8 In foster home
9 In nursing home, home for the aged, county home or infirmary
X Transfer from public mental, correctional, or children's institution

County of residence (53-54)

00	OUT-OF-STATE	15	DOOR	31	KEWAU	46	PEPIN	62	VERN
		16	DOUG	32	LA X	47	PIERC	63	VILAS
01	ADAMS	17	DUNN	33	LAFAY	48	POLK	64	WALW
02	ASHL	18	EAU C	34	LANG	49	PORT	65	WASHB
03	BARR	19	FLOR	35	LINC	50	PRICE	66	WASHI
04	BAYF	20	FOND	36	MANI	51	RACIN	67	WAUK
05	BROWN	21	FORR	37	MARA	52	RICH	68	WAUP
06	BUFF	22	GRANT	38	MARIN	53	ROCK	69	WAUSH
07	BURN	23	GREEN	39	MARQ	54	RUSK	70	WINN
08	CALU	24	GRLAK	72	MENOM	55	ST.CRX	71	WOOD
09	CHIP	25	IOWA	40	MILW	56	SAUK		
10	CLARK	26	IRON	41	MONRO	57	SAWY		
11	COLUM	27	JACK	42	OCON	58	SHAW		
12	CRAW	28	JEFF	43	ONEID	59	SHEB		
13	DANE	29	JUNO	44	OUTAG	60	TAYL		
14	DODGE	30	KENO	45	OZAU	61	TREMP		

TABLE 1

SUMMARY OF DATA DEVELOPMENT STATUS

WISCONSIN

DATA ELEMENTS			PUBLIC SCHOOLS			INSTITUTIONS			DAY CARE CENTERS			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	**ENROLLED**	**AGE**	Available from annual superintendent enrollment report	Not applicable	Superintendent of local school district	Not available from existing reporting formats	Available after modification of forms BR-10E MH-504	Superintendents of institutions	Available from DMH Annual Inventory of Day Care Programs	—	Director of Day Care Centers	Age range is submitted by some schools
		HANDICAPPING CONDITION										For some schools
		EDUCATION PROGRAM								—		For some schools
	ON WAITING LIST	**AGE**	Partially complete: data from identification reports of school district superintendent enrollment report	Not applicable	Superintendent of local school district							
		HANDICAPPING CONDITION										
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	**NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION**	**AGE**										
		HANDICAPPING CONDITION										
	INTRA-STATE TRANSFERS	**AGE**										
		HANDICAPPING CONDITION										
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	**AGE**	Available from annual superintendents enrollment report	Not applicable	Superintendent of local school district	Available from identification reports of school district superintendents	Not applicable	School district superintendent	Available from identification reports of school district superintendents	Not applicable	School district superintendent	Could be available with DMH form modification
		HANDICAPPING CONDITION										
		REASON										
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Available	Not applicable	Division of Special Education							
DATA USED TO SIMULATE SPECIAL EDUCATION	**EDUCATION PROGRAM MIX TRENDS**		Available	Not applicable	Division of Special Education							
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	**TARGET GROUP**	Currently available	Not applicable	Division of Special Education							
		EDUCATION PROGRAM										
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Currently available	Not applicable	Division of Special Education	Currently available	Not applicable	Superintendent of institution	Available	Not applicable	Director of Day Care Centers	For some schools

WYOMING STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

WYOMING STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI), has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Wyoming, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

The special education program in the state of Wyoming has unique features which cause implementation of the proposed Manpower Requirements Projection Model to be somewhat difficult, and other characteristics which make implementation easier.

The main difficulty involved in developing the model concerns the geographical remoteness of many areas of Wyoming, which presents problems in attracting qualified special educators and diagnosticians. Until improved diagnostic capability and diagnostic reporting are established in Wyoming, the information flow necessary for model implementation can only be partially complete. It is estimated that obtaining reasonably complete data on newly diagnosed handicapped children will require a minimum of several years.

A second characteristic of special education in Wyoming that causes model development to be more time consuming than it would otherwise be is the diffusion of responsibility for special education programs. Coordinating data collection is more difficult since more agencies must be involved. 1/

On the other hand, Wyoming has some characteristics which make data collection easier than in larger states. Wyoming has only one state institution involved in special education for emotionally disturbed children and only two special schools for handicapped children. Furthermore, there are only ten private training centers for mentally retarded children. The individuals responsible for these special education programs are familiar with each other and are in communication with the Division of Exceptional Children.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The responsibility for the education of handicapped children in Wyoming is illustrated in the organization chart shown in Figure 1. Only those organizations having educational or informational service functions for handicapped children have been shown. The Division of Exceptional Children has the legal responsibility for all the handicapped children receiving special education in the public schools, except visually and acoustically handicapped children. Children who are visually handicapped come under the jurisdiction of the Division of Visually Handicapped of the Department of Education. The Wyoming School for the Deaf is within the Department of Education, while the Lander Training School of the Mentally Retarded is under the Board of Charities and Reform. The Board of Charities and

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1/ See organization chart.

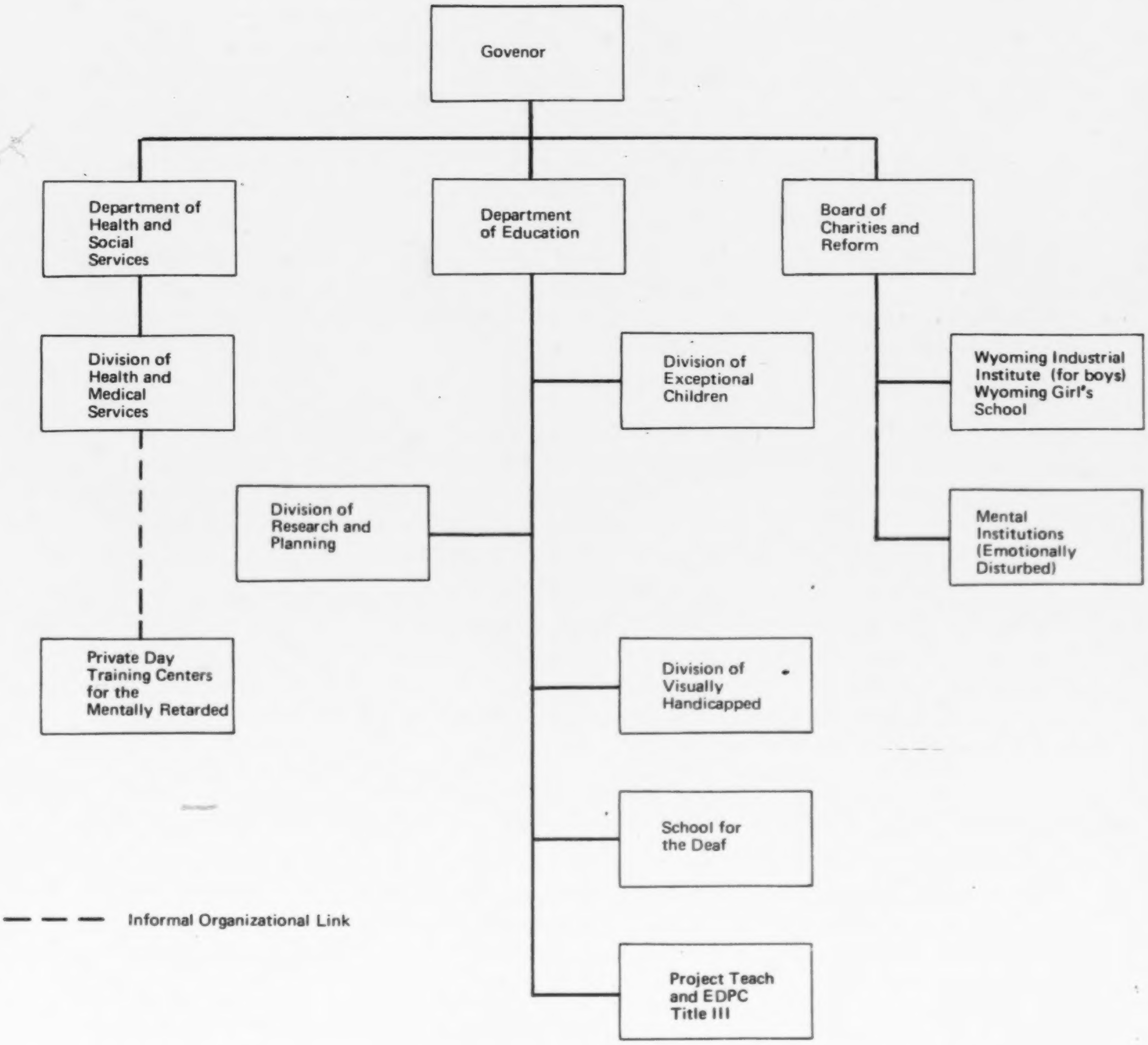
Govenor
Department of Health and Social Services
Department of Education
Board of Charities and Reform
Division of Health and Medical Services
Division of Exceptional Children
Wyoming Industrial Institute (for boys) Wyoming Girl's School
Division of Research and Planning
Mental Institutions (Emotionally Disturbed)
Private Day Training Centers for the Mentally Retarded
Division of Visually Handicapped
School for the Deaf
Informal Organizational Link
Project Teach and EDPC Title III

FIGURE 1. ORGANIZATION OF SPECIAL EDUCATION IN WYOMING

Reform also has the responsibility for special education of emotionally disturbed children in the Wyoming mental institution, except that the Division of Exceptional Children provides foundation funds for educational purposes.

The Division of Health and Medical Services of the Department of Health and Social Services has data on ten private day training centers for mentally retarded children. Although all of these day training centers are sponsored and funded by local chapters of the Association for Retarded Children, the Division of Health and Medical Services can request data from these centers on an informal basis. In this manner the data is obtained at the state level and can be used for projecting manpower requirements.

IV. DATA ELEMENT EVALUATION

Some specific data elements are necessary to the use of the manpower requirements projection model. The information which these data elements provide may also be very useful to the Division of Exceptional Children for other operational analyses. These data elements and their potential sources are discussed in the following paragraphs.

Number of Children Identified as Needing Special Education

Enrollment. Every year the Division of Exceptional Children and the Division of Visually Handicapped receive enrollment data on public school special education programs. The number of handicapped children, by single year of age, within each handicapped group, who are enrolled in each special education program, can be obtained from these reports.

The Division of Exceptional Children has not received detailed enrollment data from the Wyoming School for the Deaf in the past, but such information was requested and supplied as a result of the recent ORI visit. In the future, it appears that the Division of Exceptional Children will be provided with enrollment data from the School for the Deaf in order to derive the manpower requirements projections.

The Division of Exceptional Children also receives special education enrollment information on emotionally disturbed children in the Wyoming State Hospital.

Finally, the Division of Exceptional Children has enrollment data on the private day training centers for the mentally retarded. This information is supplied by the Division of Health and Medical Services of the Department of Health and Social Services.

Waiting List. The waiting lists for the handicapped population exist only in the areas of mental retardation and emotional disturbance. These figures are of questionable accuracy, however, since many of the children on the waiting lists of the Lander Training School for the Mentally Retarded and the Wyoming State Hospital (emotionally disturbed) are receiving some partial services in their communities.

Besides these two institutions, it does not appear that waiting lists of those children diagnosed but not enrolled can be supplied by local school districts or day care centers since there are relatively few qualified diagnosticians in the state capable of complete evaluations for educational programming with the handicapped.

Number of Children Moving Into and Out of the Identified Handicapped Child Population

It appears that the number of children moving into and out of the identified handicapped child population is not available at the state level. The problems associated with obtaining incidence (i.e., new diagnosed) data have been discussed above.

In addition to children newly diagnosed as handicapped each year by diagnostic clinics or schools, it is possible that school programs will acquire children who have been diagnosed or identified as handicapped previously in other school districts or other parts of the state. Rather than reporting these children again as newly diagnosed (which could distort the incidence picture in the state), these intra-state transfers should be reported separately. Because no mechanism exists to monitor these transfers into special education programs, this would have to be developed by the Special Education Division.

State residential schools and community centers could also be asked to indicate intra-state transfers into their programs, as part of the enrollment data that the Special Education Division would be requesting each year for inclusion in the model.

In order to obtain attrition (i.e., children leaving special education programs and children leaving waiting lists) data, a new reporting form would have to be developed for public schools. (See "RECOMMENDATIONS" section.)

Unidentified Child Population

An estimate of the number of children, by handicapping condition and single year of age, who will be newly diagnosed in the near future cannot be based on current referral lists, since such lists are not available, except for the Lander Training School. Furthermore, it does not appear possible to utilize national prevalence rates to overcome this data gap because the national rates do not appear relevant to the Wyoming special education situation. Wyoming currently has more handicapped pupils enrolled in special education programs than national figures would suggest. That is, there are more children being served in Wyoming in some handicap areas than national prevalence rates would indicate might exist in such a sparsely populated area.

General Population Projections

The projected number of children in the general population, by single year of age, for each year for which special education manpower projections are to be made, presents little problem in data collection since Title VI project applications require this information, at least for the coming fiscal year.

Projections are also available for future years.

Data Used to Simulate Special Education

Trends in the proportionate number of children served in each educational program, by handicap group and age, are available for public school special education programs, special school programs, institutional programs and day training programs.

The personnel/pupil contact ratios for the types of personnel in direct contact with the children in each target group in special education programs is another data item that is readily available from the Division of Special Education, the Wyoming State Hospital and the two special schools.

Employment by Personnel Types

At the present time, the Division of Exceptional Children regularly receives employment data on public school special education personnel and the Wyoming State Hospital special education personnel. The Division does not regularly receive this data on special school personnel nor on day training center personnel.

V. PROCESSING POTENTIAL

Hardware and Personnel

Hardware available to the Division of Exceptional Children in the form of an IBM 360/30 computer is adequate for data processing but lacks sufficient storage capacity (32K words) for minor application. The data processing for the Manpower Requirements Projection Model would be accomplished through the Division of Research and Planning of the Department of Education. The Division of Research and Planning utilizes the Department of Highway's computer.

There is adequate programming capability available to the Division of Exceptional Children from the Division of Research and Planning. The keypunching services necessary for model implementation must be rented from private sources, however, since the Department of Education does not have this capability.

The funding for the computer time, programming, and keypunching may be absorbed by the Division of Research and Planning, depending on the availability of its funds. Otherwise, the charge for such operations would be prorated to the Division of Exceptional Children.

VI. ADDITIONAL FACTORS

Because of the geographical remoteness of many parts of Wyoming, the public school systems have difficulty in attracting qualified educators. While Wyoming may not have a need for a relatively great number of special educators, a shortage of education personnel currently exists. Determining the extent of this shortage is a problem since Wyoming also has difficulty in attracting qualified diagnosticians in many areas of the state, despite the fact that salaries are very competitive on a national basis.

Because of the historical division of responsibility for special education in Wyoming,[2] establishing a regular information flow between the relevant agencies will require conscientious effort on the part of the Division of Exceptional Children.

This will be especially true in developing interagency cooperative directives at the state level for setting up the diagnostic reporting procedures which are a prerequisite to the collection of accurate and complete data on the newly diagnosed handicapped child population. The effect of such directives on increasing communication between state sponsored clinics, private physicians, and local school districts is still unknown.

VII. RECOMMENDATIONS

As a result of the interviews with those individuals responsible for special education programs in Wyoming, several recommendations concerning model development and implementation can be made. First, the state agencies accountable for special education programs must close the data gaps between current data availability and the amount of data necessary to implement the model.

In order to close the data gap, the Division of Exceptional Children must begin the lengthy process of coordinating the efforts of obtaining data on newly diagnosed children. Because there are few qualified diagnosticians in each handicap area, it will take many years of continuous effort to diagnose all of the presently unidentified handicapped child population in Wyoming. The Division of Exceptional Children must provide diagnosticians with a new reporting form to capture information on newly diagnosed children. A sample form is presented in Figure 2.

The Division of Exceptional Children must also design a reporting form to obtain attrition information from public school special education programs. Attrition data from the special schools and institutions would probably have to be collected on an informal basis since these three facilities are not under the jurisdiction of the Division of Special Education. The same procedure could be followed, through the Department of Health and Social Services, in securing data from the private day training centers for the mentally retarded. Developing this information flow will require the continual attention of the Division of Exceptional Children since there are several agencies involved in the education of handicapped children.

The second general procedure necessary for implementing the proposed Manpower Requirements Projection Model concerns the actual processing of the data. Because of the availability of adequate hardware to the Division of Exceptional Children and the Division's over-all responsibility for special

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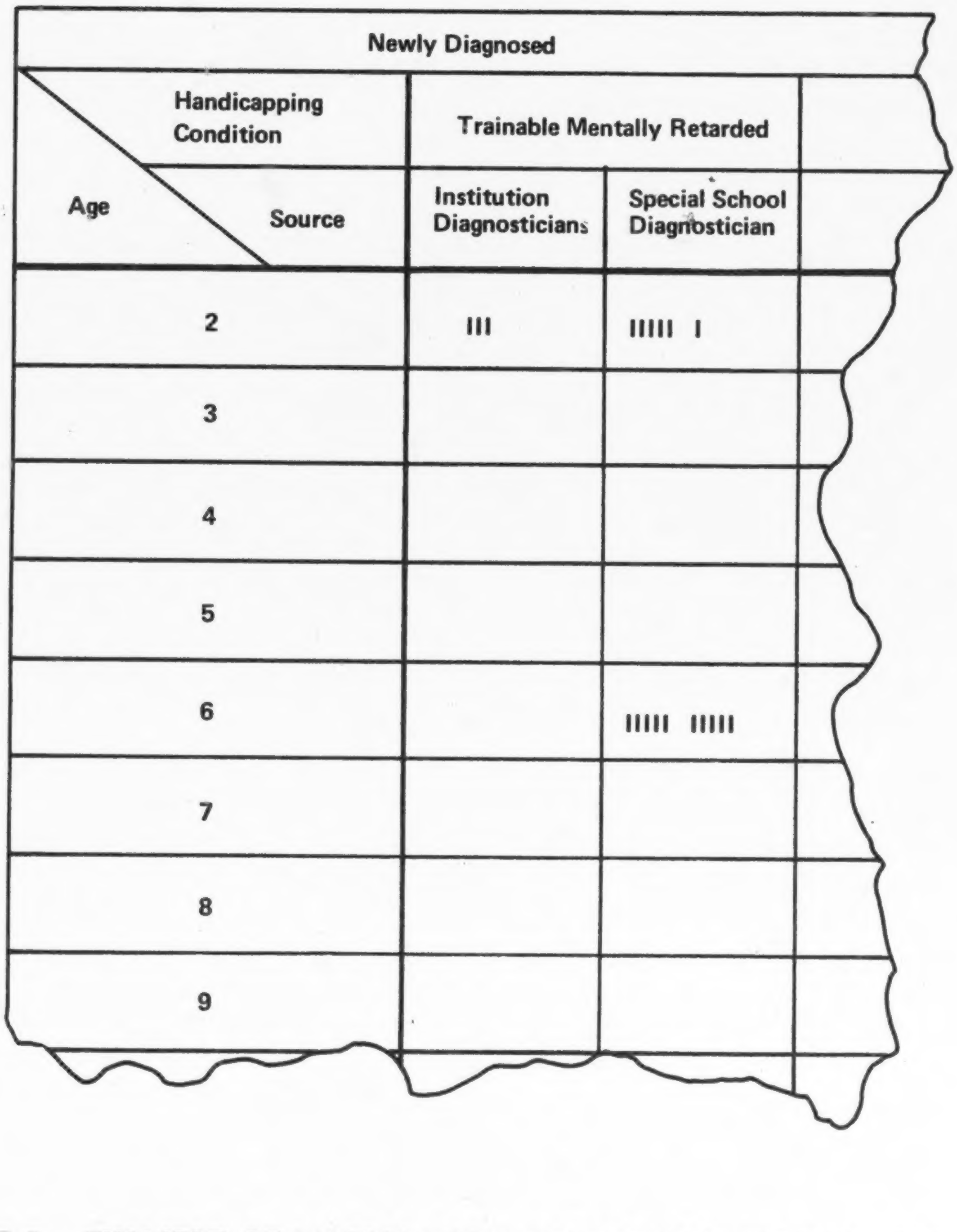
[2] See organization chart.



Newly Diagnosed			
Handicapping Condition	Trainable Mentally Retarded		
Age / Source	Institution Diagnosticians	Special School Diagnostician	
2	III	IIIII I	
3			
4			
5			
6		IIIII IIIII	
7			
8			
9			

FIGURE 2. EXAMPLE OF MATRIX FORM TO COLLECT DIAGNOSTIC DATA ABOUT NEW ENTRANTS TO HANDICAPPED CHILD POPULATION AND EXAMPLE OF HASH-MARK ENTRIES

education, it is recommended that the State Hospital, the Special Schools, the Division of Health and Medical Services of the Department of Health and Social Services (private day training centers for the mentally retarded), and the Division of Visually Handicapped supply their data to the Division of Exceptional Children for inclusion in the projection model.

In order to carry out this last recommendation, it would be highly advisable for all persons involved in the proposed effort (see listing on page D50-10) to meet to consider all aspects of special education information needs in Wyoming.

VIII. RESOURCE REQUIREMENTS—MANPOWER

The manpower required to implement the proposed recommendations includes 2 1/2 man-months of special education staff effort. 1/2 a man-month for forms design, 2 man-months of system analyst time, and 1/2 a man-month for programming over a 3-4 year time span. Once the system was established a cumulative annual effort of approximately 1 1/2 man-months should be sufficient to maintain the system.

IX. PERSONS INTERVIEWED

The persons interviewed by the ORI (Leasco) representative, Mr. Jeffrey Koshel, during the week of 15 September 1969 were:

Dr. Sara James	Director, Division of Exceptional Children
Mr. Lamar Gordon	Program Director, Title VI-A ESEA
Mr. Norman Anderson	Director, Wyoming School for the Deaf
Mr. H. Smith Shumway	Director, Division of Visually Handicapped
Mr. Dale Lucas	Chief, Division of Research and Planning
Mr. Lloyd Hovee	Secretary, Board of Charities and Reform
Mr. Cone Munsey	Director, Mental Health and Mental Retardation Services, Department of Health and Social Services
Dr. David Kirk	Director Paramedical Services, Wyoming State Training School, Lander, Wyoming

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS
WYOMING

DATA ELEMENTS			PUBLIC SCHOOLS			SPECIAL SCHOOLS			STATE HOSPITAL			PRIVATE CENTER DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Currently available at state level	Not applicable	School District Superintendent	Currently available to state	Not applicable	Wyoming School for the Deaf and Lander Training School	Currently available	Not applicable	Wyoming State Hospital	Currently available through Division of Health and Medical Services
		HANDICAPPING CONDITION										
		EDUCATION PROGRAM										
	ON WAITING LIST	AGE	Not available	New form needed, should be sent to diagnosticians within state by Division of Exceptional Children	Qualified diagnosticians in each handicapped area	Currently available	Not applicable	Wyoming School for the Deaf and Lander Training School	Currently available	Not applicable	Wyoming State Hospital	Not applicable: Centers serve all trainable mentally retarded in community
		HANDICAPPING CONDITION										
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not available									
		HANDICAPPING CONDITION										
	INTRA-STATE TRANSFERS	AGE	Not available	New form needed	School District Superintendent	Available	Not applicable	Wyoming School for the Deaf and Lander Training School	Currently available	Not applicable	Wyoming State Hospital	Not currently available at state level
		HANDICAPPING CONDITION										
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Not currently available			Available	Not applicable	Wyoming School for the Deaf and Lander Training School	Currently available	Not applicable		
		HANDICAPPING CONDITION										
		REASON										
YEARLY PROJECTIONS OF THE CHILD POPULATION BY AGE			Available	Not applicable	Department of Education							
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Available	Not applicable	Division of Special Education							
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Currently available	Not applicable	Division of Special Education and Visually Handicapped	Currently available	Not applicable	Wyoming School for the Deaf and Lander Training School				Available—Division of Health and Medical Services
		EDUCATION PROGRAM										
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Available	Not applicable	Division of Special Education	Available	Not applicable	Special schools	Available	Not applicable	State Hospital	Available